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THE RISE AND PROGRESS OF ASSYRIOLOGY

STATUE OF ASHURNASIRPAL II, KING OF ASSYRIA, 883–859 B.C.

Discovered by Layard in the temple of Enurta at Nimrûd (Calah).

THE RISE & PROGRESS OF ASSYRIOLOGY

BY

SIR E. ~~A.~~ ~~Alfred~~ WALLIS BUDGE, KT.

M.A., LITT.D., D.LITT., D.LIT., F.S.A.

SOMETIME KEEPER OF EGYPTIAN AND ASSYRIAN ANTIQUITIES IN THE BRITISH MUSEUM; CORRESPONDING MEMBER OF THE ACADEMY OF SCIENCES, LISBON, AND OF THE AMERICAN PHILOSOPHICAL SOCIETY, PHILADELPHIA

WITH 32 *PLATES*

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THIS BOOK

WHEREIN IS SHOWN HOW THE

TRUSTEES OF THE BRITISH MUSEUM

FOSTERED THE SCIENCE OF ASSYRIOLOGY FOUNDED BY RAWLINSON, AND DEVELOPED AND ESTABLISHED IT BY THEIR EXCAVATIONS IN MESOPOTAMIA AND BY THE PUBLICATION OF CUNEIFORM TEXTS

I DEDICATE, BY PERMISSION,

TO

THE MOST REV.

RANDALL THOMAS DAVIDSON

G.C.V.O., D.D., D.C.L., LL.D., Etc.

ARCHBISHOP OF CANTERBURY AND

PRINCIPAL TRUSTEE OF THE BRITISH MUSEUM

PREFACE

Those who have taken the trouble to study carefully the accounts of the decipherment of the cuneiform inscriptions and of the beginnings of Assyriology, which have appeared in recent years in articles on these subjects in magazines and encyclopædic works, both at home and abroad, must often have been puzzled by the differences and contradictions that are found in the statements made by their various authors. Though absolute proof exists that Major (later Sir) H. C. Rawlinson was the first to copy, and decipher, and translate the great trilingual inscriptions of Darius the Great on the Rock of Bihistûn, which is all that he personally ever claimed to have done, it is often suggested, and even definitely stated, that the credit for performing this stupendous work should not be assigned wholly to him. Some would even deny that he climbed the Rock at all to copy the inscriptions in 1836 and 1837—a splendid feat of bravery and athleticism —and would have us believe that he never left the ground, but copied the inscriptions by means of a field-glass. And some, while admitting that he was the first to publish translations of the Bihistûn Inscription, attempt to show that the actual decipherment was effected by others, and that he, with extraordinary astuteness and skill, absorbed the results which they had obtained, and gave them, in a modified form, to the world as his own work. Others

assert that Grotefend, the Hanoverian, was the real decipherer, but omit to state that it was the hint which he derived from Silvestre de Sacy's translations of the Sassanian Pehlevi inscriptions in Persia that enabled him to make his lucky guesses at the names of Hystaspes, Darius and Xerxes, which for many years he failed to transliterate correctly.

Others say that Rawlinson owed his success to Burnouf's Commentary on the Yaçna, a section of the Zend Avesta, because it supplied him with the Zend and Sanskrit forms of the Old Persian words in the Bihistûn Inscription. Menant claimed the same for de Saulcy, and other French writers tried to make out that the writings of Mohl, Saint Martin and Jacquet were the sources of Rawlinson's success. Again, others thought that Lassen, Rask and Westergaard, who by the way were Scandinavians and not Germans, supplied Rawlinson with his Old Persian Alphabet, and in some quarters the Irish clergyman Edward Hincks has been commiserated as being the chief victim of Rawlinson's alleged plagiarism.

Such misstatements show that these authors have not taken the trouble to read the early literature of the decipherment of the cuneiform inscriptions, and it seems that some of them have allowed the bias of nationality to influence their judgment. Only on one point do they agree, *i.e.* in their desire to take from Rawlinson, in whole or in part, the credit which that great Englishman deserves. And not content with whittling away Rawlinson's rightful claim to be the first decipherer and translator of the trilingual inscription of Darius on the Rock of Bihistûn, many writers ignore the great work which he did as Director of Excavations in Mesopotamia for the Trustees of the British Museum between 1846 and 1855, and as Editor-in-chief of the five volumes of the *Cuneiform Inscriptions*

of Western Asia, which were published by the Trustees between 1856 and 1884. His work on the Semitic texts on the tablets from Nineveh alone entitles him to be styled "Father of Assyriology," and for forty years at least he was the director of all cuneiform enterprise in England. It may be noted too that the assistants of Rawlinson have suffered the same fate as their master. The services of Edwin Norris and George Smith, and other officers of the British Museum, to whom modern Assyriologists owe most of their knowledge of cuneiform and the material on which they work, are never adequately acknowledged by them, and all mention of the work of these scholars is generally avoided.

In short, there seems to exist a rather widespread desire, especially on the Continent, and among the followers of Continental scholars in England, to belittle the works of English Assyriologists, and to obscure the fact that the science of Assyriology was founded by Englishmen, and developed entirely by the Trustees of the British Museum and their staff. The English built the main edifice of Assyriology, and other nations constructed the outlying buildings. The Trustees took over the task of excavating the ruins of the great cities of Assyria from Stratford Canning, and built the Galleries that now hold the collections of sculptures and other antiquities which were acquired by Layard, Loftus, Ross, Rassam, George Smith, and later workers. They next provided trained men to clean and repair the tablets, bronzes, etc., and found means to prevent the tablets from disintegrating; this done, each tablet was placed in a wool-lined box and labelled. By means of excavations, frequently renewed, and by wise purchases effected in Baghdâd, Baṣrah and London, the great National Collection of Sumerian, Babylonian and Assyrian tablets, etc., has been increased

until it now contains about 120,000 objects. With the exception of the tablets exhibited in the Galleries, all these are arranged on shelves in numbered presses.

Having provided for the preservation of the Collection and its expansion, the Trustees began their publications of cuneiform texts with Layard's *Inscriptions in the Cuneiform Character*, London, 1851. During the next thirty years they published the five large folio volumes of Rawlinson's *Cuneiform Inscriptions of Western Asia*, containing 350 plates of inscriptions which range from 3300 B.C. to 300 B.C. Next they issued Bezold's Catalogue of *Cuneiform Tablets in the Kouyunjik Collection* in five volumes containing over 20,000 entries, and King's *Supplement* with about 2000 entries. These were followed by forty volumes of Sumerian, Babylonian, Assyrian, Cappadocian and Hittite cuneiform texts containing 2000 well-filled plates of inscription. Among the British Museum publications, containing translations as well as texts, may be mentioned the *Tell el-Amarna Tablets* (1892), *Annals of the Kings of Assyria* (1903), the *Sculptures and Inscription of Darius the Great* (1907), and *Babylonian Boundary Stones* (1912). And the Trustees have treated foreign scholars and students with the greatest liberality. At first students were allowed to consult and copy the texts in Birch's private study, and when it was found that this became crowded, a special room was provided for their use. Would-be Assyriologists and scholarly enquirers were, and, subject to the necessary regulations for purposes of custody, still are, permitted to copy and study any tablet they ask for. My experience leads me to believe that such liberality is unknown outside England. And until the privilege was grossly abused, Rawlinson allowed students to have copies of the sheets of the *Cuneiform Inscriptions* to work at before they were published in his

volumes. This was most generous on his part, for more than one student who came to the Museum to learn to copy texts, and in fact to acquire the rudiments of Assyriology, announced openly that he had come "to correct Rawlinson's mistakes."

The object of this book is to tell the general reader how Rawlinson founded the science of Assyriology, how it was established solely by the Trustees of the British Museum, and to show how the study of it passed from England into Germany and other European countries, and finally into America, where it has taken deep root. No work in which all the facts are correctly stated has hitherto appeared, and it is probably due to the omission of Rawlinson and Norris to write one that students, both in England and on the Continent, ignore more and more completely the fact that the world owes the science of Assyriology to the English. I wrote this book at the request of my former colleagues in the British Museum, who wanted to know all I could tell them about the beginnings of Assyriology. I was by no means the best qualified among them to write it, except from the point of view of age and experience. But they knew that in 1883 I had been appointed as an Assistant on the Assyrian side of the Department, that I had before that year worked in it as a student for eleven years, and that during that period I had become acquainted with all the early English decipherers of the cuneiform inscriptions (with the exception of the Rev. E. Hincks, who died in 1866). They knew too that I had gained much information about Rawlinson and his little band of workers, and their labours and triumphs, from them personally and from their immediate friends and helpers, Birch, Vaux, Bonomi, W. R. Cooper and others. And they knew that as Assistant and Keeper, I had for forty-one years been in direct contact with

the students who came from the Continent and America to study in the Department. During that period it had been my duty to assist in the preparation of the publications of the Department, to arrange the Collections of Babylonian and Assyrian Antiquities, to plan editions of texts, and to carry out the directions of the Trustees for the working of the Department.

From what is said in the following pages it is clear that for the last sixty-five years the Trustees of the British Museum have been publishing original cuneiform material in no small quantity. In order that further original work may be satisfactorily done, reliable works of reference are required, viz. a good English grammar of Assyrian, a comprehensive dictionary, not overfilled with philological quotations, and a series of general reference books on special details, such as weights and measures, astronomy, mathematics, geography, religious iconography, and historical dates with references. All these are works of compilation which the officials of the British Museum have no time to undertake, and which ought to be done at some University. It ought to be impossible for students of Semitic languages to neglect any longer the assured results of Assyriology, and only standard works of compilation can place these at their disposal. Men are wanted who will do for Assyriology what Sir William Smith did for classical studies.

As I have often been asked, "What was Birch like?", and "What sort of a man was George Smith to look at?" I felt when I began to write about the early Assyriologists that it would add to the reader's interest in them if I could give him portraits of at least some of them. I wrote to many Assyriological friends on the subject and they encouraged me to do this, and I gratefully acknowledge the help and the information with which many

supplied me. Birch gave me the photographs of Hincks and himself, and Rawlinson, Vaux, Sayce and Boscawen gave me theirs. The portraits of the great Scandinavians, Lassen, Rask, Westergaard and Knudtzon, are reproduced from Friis, *Det Nittende Aarhundrede*, Copenhagen, 1924, and Rindom, *Minder fra Studenterdagene*, Copenhagen, 1924. The portraits of Schrader, Delitzsch and Bezold I owe to the kindness of Madame Bezold, and the portrait of Dr. C. H. W. Johns I owe to his widow. Those of Niebuhr, Grotefend, Burnouf and Fox Talbot I was fortunate enough to be able to buy. The Rev. Father Thurston, S.J., kindly allowed me to have a copy made of the excellent portrait of Father Strassmaier, S.J., now hanging in the passage of the Jesuits' House in Farm Street. The portrait of George Smith is reproduced from a spirited pencil drawing made by a friend and published in the *Christian Herald* for 1875. The portrait of Oppert is reproduced from Muss-Arnolt's excellent list of this scholar's works published in Delitzsch's *Beiträge*, Bd. II. p. 523 ff. The portrait of L. W. King I owe to the kindness of his sister, Miss F. King, and Mr. Augustus Ready, of the British Museum, gave me the cast of the medallic portrait of R. C. W. Ready, his father, by G. A. Carter, from which my reproduction is taken. I have to thank too my former colleagues Pinches, Hall, Campbell Thompson, Sidney Smith and Gadd, and the representative Assyriologists and Archæologists on the Continent and in America, Hommel, Father Scheil, Thureau-Dangin, Boissier, Professors Lyon, Clay and Waterman, and Dr. Gordon of Philadelphia, for their photographs and permission to reproduce them. The photograph of myself was added at the request of the publishers of this book. The reproductions of the monuments in the British Museum were made by permission of the Trustees.

Assyriologists will have heard, with great regret, of the death of A. T. Clay, Laffan Professor of Assyrian and Babylonian Literature in the University of Yale from 1910. He died at New Haven, Connecticut, on September 14, 1925. He was born at Hanover, Philadelphia, December 4, 1866. He travelled in the East in the interests of Oriental Studies in America, and, as will be seen from p. 255, edited a large number of important cuneiform texts. His death will be a great loss to Assyriological science in America. A portrait of him will be found facing p. 256.

E. A. Wallis Budge.

48 Bloomsbury St.,
Bedford Square, W.C. 1.
September 18, 1925.

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THE RISE AND PROGRESS OF ASSYRIOLOGY

THE EARLY TRAVELLERS IN PERSIA AND BABYLONIA AND THEIR DESCRIPTIONS OF THE ANTIQUITIES

In the following pages an attempt has been made to give the general reader a short account of the birth and development of Assyriology from the middle of the nineteenth century to about 1916, *i.e.*, during a period of about sixty years. The importance of the subject lies in the fact that it is the history of the discovery and development of a new branch of humane learning. The early travellers in Persia and Babylonia between, say, 1450 and 1850 brought to the notice of the learned world in Europe the existence of arrow-headed writing in both countries. But whether this writing in the two countries was fundamentally one and the same was not known until the writing found in each country was deciphered. In the following sections it is proposed to summarize briefly the accounts of the early travellers of the antiquities in Persia and Babylonia, and to show how the decipherment of the arrow-headed writing was effected.

I.—THE ANTIQUITIES IN PERSIA

Takht-i-Jamshîd (Persepolis)

1. The largest and finest group of antiquities stands on a huge terrace, built on an irregularly-shaped platform, which rests on the slope of the hill Kûh-i-Raḥmat, at a

point near the junction of the rivers Kur (Cyrus, Araxes, Bandamir) and Polvar (Pulwar, Medos), about 40 miles north-east of Shîrâz. The platform on which the terrace stands resembles the Babylonian *temenu*, but three sides of it are supported by a strong wall, which is in some places more than 30 feet high. These ruins are the remains of palaces, built of hard grey marble of a fine texture; and there is sufficient evidence to show that some of them were never finished. Local tradition attributed the building of them to Solomon, King of Israel, or to Jamshîd, a very early Persian king, but they are often called Takht-i-Kai Khusrau, or "Throne of Cyrus," and Khanah-i-Dara, or "Palace of Darius," and Takht-i-Jamshîd, or "Throne of Jamshîd." For centuries they have been known in the neighbourhood as "Chihil Manare," *i.e.*, the "Forty Minarets" (or Pillars). We now know that they were built by Darius I and Xerxes; and it seems clear that the site on which they stand was the suburb of a great city in which Darius I and his successors loved to dwell. The original Persian names of both city and suburb are unknown; but there is no doubt that the ruins known as the "Forty Minarets" are the remains of the buildings that were burnt by Alexander the Great at the place which the Greek writers call Persepolis, and describe as the capital of the Persian Empire (Diodorus, XVII. 70–72) and the richest city in Persia (Strabo, XV. cap. 3, Persis).

According to Diodorus, the citadel was surrounded with a wall in three stages, 108 cubits in height, and was provided with brass gates and brass railings 20 cubits high. Alexander took from the treasury gold and silver to the value of 120,000 talents, or about twenty-six and a half millions sterling. During one of the great feasts which he made to celebrate his capture of Persepolis, a certain courtesan, an Athenian woman called Thaïs, suggested that the most

splendid act that he could perform would be to burn down the palaces of the Persians, to avenge the insults which they had offered to the temples of the Greeks. It is possible that Alexander may have remembered the 800 Greeks whom he had met during his march to Persepolis, and the mutilations and slavery that they had suffered at the hands of the Persians (Diodorus, XVII. 69), and that he may have been willing to avenge their cause. Be this as it may, the suggestion of Thaïs was applauded by his drunken friends, and with songs accompanied by flutes and the cries of the courtesans, he and his party took the torches which had been lighted, and set out to burn down the palaces. Alexander threw the first torch, Thaïs the second, and each member of the rest of the party threw his torch against the wood-work, which was of cedar, and in a short time the building became a fiery furnace. This statement of Diodorus is supported by the evidence collected by F. Stolze (see his *Die achaemenidischen und sassanidischen Denkmäler*, Berlin, 1882), who found that the palace of Xerxes at Takht-i-Jamshîd showed traces of having been destroyed by fire. Earlier investigators of the ruins had arrived at a similar conclusion.

Diodorus mentions a rock containing tombs of the Persian kings, and states that there is no means of access to it, and that the bodies had therefore to be deposited in their tombs by some specially constructed mechanical contrivances. These tombs, which are now supposed to be the sepulchres of Artaxerxes II, Artaxerxes III, Arses and Darius III, have been mentioned by several travellers. Don Garcia de Silva Figueroa says that they are on the side of the hill at the foot of which the Castle is built (see *Purchas His Pilgrimes*, 1625). Thévenot (*Voyage*, 5 vols., Amsterdam, 1727, Vol. IV. p. 520) speaks of two tombs. He could not enter that on the north, because it was full

of water; but in the southern tomb he found three sepulchres hewn out of the rock, like the basins of a fountain.

The great and wealthy city that Alexander plundered lay about three miles to the east of the palaces which he burnt; and its site had probably been inhabited for many centuries before the Achæmenians rose to power. As already said, its name in pre-Persian and Persian times is unknown. That it was a great city is clear; but, as Nöldeke rightly says, the real capitals of the Persian Empire were Susa, Babylon and Ecbatana; these were well known to the Greeks. But the city which Alexander plundered was not, and the name, PERSEPOLIS, which Greek writers gave it, was merely a makeshift. Little is known of the history of Persepolis after the time of Alexander; but it must have been of some importance in the first quarter of the second century B.C., for Antiochus Epiphanes attempted to copy Alexander's example and plunder it. According to 2 Maccabees ix. 1, 2, "he entered the city called Persepolis, and went about to rob the temple and to hold the city;" but the inhabitants rose and defended themselves to such good purpose that he was put to flight, "and came with dishonour out of the country of Persia." In the first or second century A.D., the site of Persepolis was occupied by the city which the Arabs called Iṣṭakhr; it was the capital of the district of Iṣṭakhr, *i.e.*, of the whole of the northern part of Fârs, and was a place of great importance under the Sassanian kings. As Shîrâz, the new capital, grew, so Iṣṭakhr declined; and during the Middle Ages it degenerated into a district of fertile gardens famous for their fruit and vegetables.

The Tomb of Cyrus the Great at Murghab.
(From Dieulafoy, *L'Art antique de la Perse*, Paris, 1890.)

Murghâb (Pasargadæ)

2. The second large group of Achæmenian ruins is found at Murghâb on the river Kur (Cyrus, Araxes, Bandamir), about 30 miles to the north of Persepolis, and is the remains of the city of Pasargadæ, which Strabo says (XV. 730) was built by Cyrus to commemorate his defeat of Astyages the Mede. The city took its name from the tribe to which Cyrus belonged, and contained a great treasure-house, in which were heaped up vast quantities of gold, silver and precious objects. All these were seized by Alexander A.D. 336, after his conquest of Persia (Arrian, III. 18, 10). The principal monument here is the tomb of Cyrus the Great, commonly known in the neighbourhood as "Mashad-i-Mâdar-i-Sulaymân," *i.e.*, "Sanctuary of the Mother of Solomon." It stands on seven layers of huge white marble blocks; and its walls, cornice and roof are made of large, carefully cut and "dressed" blocks, which have remained in position in spite of the clamps that held them together having been stolen by the people round about. The tomb-chamber, which is entered through a very narrow doorway, so well described by Strabo (XV. 3, 7), *στενὴν τελέως ἔχοντα τὴν εἴσοδον*, and Arrian (VI. 29), is about 7 feet high, 10 feet 6 inches long and 7 feet 6 inches wide. The inscription which Aristobulos, the companion of Alexander, when he visited the tomb, says he saw there is no longer visible. The accounts of the tomb of Cyrus given by classical writers describe so exactly this building that it is difficult to understand why Morier's identification of it was not accepted without question. Among the ruins of the town are the remains of several buildings of this period. The three largest were of brick built on stone foundations, and bear upon them inscriptions of Cyrus in Persian.

Susian and Babylonian cuneiform characters. Pasargadæ was probably an ancient city when Cyrus began to build there; but its power and glory diminished quickly as the wealth of Persepolis increased.

Naḳsh-i-Rustam

3. Looking across the river Pulvâr from the ruins of the palaces of Darius and Xerxes, at a distance of about 3 miles, are to be seen the famous Achæmenian tombs of Naḳsh-i-Rustam. This name means the "picture (or likeness) of Rustam," and was given to the place because the natives thought that the reliefs of the Sassanian kings on the rocks there represented Rustam, the great national hero of Persia. This mighty warrior is said to have been a prince of Sajistân, who flourished in the sixth century B.C. He fought many battles against Isfendiar, the famous adherent of Zoroaster, and was victorious in them all. He died when on an expedition to India. Many of the exploits with which tradition credits him were performed by other warriors, some of whom lived centuries before and others centuries after him. The tombs at Naḳsh-i-Rustam are four in number, and they are cut high up in the face of the rock; it has been thought that Diodorus confused these tombs with those of Takht-i-Jamshîd, when he said that the bodies of the dead kings had to be introduced into their tombs by mechanical means. The decorations of the façades of all four are the same; and one of them, the second, contains inscriptions which prove that it was the tomb of Darius I. The chamber is really a sort of rock-hewn cave, and is about 60 feet long and 45 feet wide. In the floor are three rectangular cavities, each rather more than 6 feet in length; and near them are three large slabs of stone which formed

Bas-relief of Cyrus the Great.

their coverings. The kings buried here were Darius I, and probably Xerxes I, Artaxerxes I and Darius II.

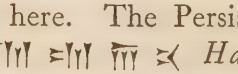
Bihistûn (Bagistân)

4. The Great Rock at Bihistân, or Bihistûn, or Bîsutûn is the "Bagistanus Mons" of Diodorus (II. 13), who says that it was 17 stadia in height, and stood in a paradise, or garden, 12 stadia in circumference, and that Semiramis caused a portrait of herself to be sculptured upon it, together with portraits of one hundred of her guards, and an inscription in Syrian characters. Diodorus says also that the mountain was sacred to Zeus, meaning, of course, Ahuramazda; and the original form of the name Bagistana, which means "the place of the God," supports his statement. The Rock rises directly to a height of rather more than 3800 feet from the end of a long ridge of black rocks which forms a low mountain range, and is visible from a very great distance. It stands on the road from Hamadân to Kirmânshâh, *i.e.*, the great highway between Persia and Babylonia, or the old Khurâsân Road, and is about a day's march, say, 20 miles, eastwards of Kirmânshâh. The Arab geographer Yâḳût (ed. Wüstenfeld, Vol. I. p. 769) mentions the village of Bahistûn, and says that it lies on the road between Hamadân and Ḥulwân and is called Sâsâniyân. He gives a short description of the Sassanian sculptures there, as also do Iṣṭakhrî (ed. de Goeje, p. 193) and Ibn Ḥawḳal (ed. de Goeje, pp. 265, 266). Ibn Ḥawḳal says that the sculptures on the Rock represent the interior of a school with the master and his boys, and that the master holds in his hand an instrument with which to beat the boys when unruly. Such is his description of the famous relief in which Darius I is seen standing with the rebels before him. The Sassanian

sculptures are near the spring at the foot of the Rock, which is mentioned by Yâḳût; and according to the same Arab authority, they represent Khusraw Parwîz, mounted on his famous horse Shabdîz, and the beautiful Queen Shîrîn. Under Shibdâz Yâḳût gives (Vol. III. p. 250) a number of traditions about Parwîz and the Queen; see also G. le Strange, *Eastern Caliphate*, p. 188.

The sculptured bas-relief and the great trilingual inscription which Darius I caused to be cut on the Rock are from 300 to 400 feet above the ground, and occupy a carefully prepared surface which is about 60 feet wide and 23 feet high. In the bas-relief the largest figure is Darius, who stands with his right hand raised in salutation to the god Ahuramazda, who is seen rising from out of a winged disk. The identification of this god was first made by Hincks. The left hand of the king rests on one end of a bow, and his left foot is planted on the body of Gaumāta, the Magian, *i.e.*, the False Smerdis, who lies on his back with his hands raised beseechingly to Darius. Behind the king stand his bowman and spear-bearer, and before him stand the nine rebel chiefs, roped together by their necks with their hands tied together behind their backs. The figure of Skunka, the ninth rebel chief, who wears a fool's cap, was sculptured at a later date by Darius. This cap was not given to the rebel because Darius wished to indicate specially the folly of Skunka, but because it was, probably, the headdress of his clan or tribe. Above the figures is a series of epigraphs which give the names of the nine rebel chiefs thus: (1) Âtrina of Susiana; (2) Nidintu-Bêl of Babylon; (3) Phraortes the Median; (4) Martiya the Susian; (5) Citrantakhma the Sagartian; (6) Vahyazdata the Persian; (7) Arakha the Babylonian; (8) Frâda the Margian; (9) Skunka the Scythian. The text referring to Gaumāta is cut below his figure. The total number of small inscrip-

tions cut in the area of the relief is thirty-two; eleven are in Persian, twelve in Susian, and nine in Babylonian. Immediately below the sculptured relief are five columns of cuneiform text, in the Old Persian language, containing $96 + 98 + 92 + 92 + 36 = 414$ lines. To the left of these are three columns and three lines of cuneiform text, in the Susian language, containing $81 + 85 + 94 + 3 = 263$ lines. The Susian text contains a translation of the first four columns of the Persian text. On the left-hand side of the bas-relief, and on two faces of an overhanging rock above the Susian text, is an inscription of 112 lines, written in the Babylonian language and character, containing a translation of the first four columns of the Persian text. To the right of the relief are four columns of supplementary texts, but the greater part of them is illegible through weathering; a part of the first column, which was in Susian, was cut away in order to make room for the figure of Skunka the Scythian, which was added some time after the other figures of rebels had been completed. Some have wondered why Darius had this bas-relief representing his triumph over the Pseudo-Smerdis and the nine rebel chiefs, and this great trilingual inscription containing nearly 800 lines of text, and the thirty-two epigraphs, cut upon the face of a rock several hundreds of feet above the ground, where it is not possible to see the sculptured figures clearly, still less to read the inscriptions. But it will be remembered that the Arab geographers mention springs of water at the base of the Rock; and, as we see from the work of King and Thompson (*Inscription of Darius the Great*, London, 1907, Plate ii), the springs are still there. These springs have existed from time immemorial; and it is certain that, as long as the high road by the pass of Ḥulwân has run between the Rock and the springs, caravan leaders have halted there to water their

animals. This was a fact well known to Darius, and he was certain that, in setting his bas-relief and inscription on the Rock above the springs, he was placing these wonderful memorials of his conquests in a position where every traveller by that road would see them, and would have time during his halt to ask questions about them. By so doing Darius made the Rock itself an everlasting memorial of his name. Major F. A. C. Forbes-Leith states that when he arrived at the Rock of Bihistûn in September 1924 he found 5000 pilgrims encamped there (*Evening Standard*, 30 Sept., 1924). It seems that a miracle had been performed in the mosque there—either a blind man had been made to see or a lame man to walk—and as a result, every man suffering from blindness or lameness or some other physical disability was brought there from many miles round to be healed. Darius, far-sighted though he was, could hardly have foreseen such a happening! That Darius should cut an account of his wars and triumphs on the Rock of Bihistûn is easy to understand; but why he should take the trouble to proclaim them in writing on Mount Elvend, or Alwand (the classical Orontes), is not clear. This mountain range, which stands on the western side of Persia, is the most prominent mountain seen by the traveller as he journeys along the age-old road from Babylonia to Rhages. It is formed of granite, and is more than twelve thousand feet high, *i.e.*, above sea-level; and its summit is six thousand feet above the modern town of Hamadân, which nestles at its foot. See the description of the mountain given by Yâḳût (Vol. I. p. 225), who calls it "Arwand." There must have been a city here from time immemorial, for several ancient caravan routes converge here. The Persians called the city Hagmatâna  *Ha-g-ma-ta-a-na*, a name which is said to mean "the meeting-place of many roads"

The Rock of Bihistûn, showing the Sculptured Panel, and the Trilingual Inscription of Darius I in the Old Persian, Susian and Babylonian Languages.

(Sykes, *History of Persia*, Vol. I. p. 120), and the Greeks "Ecbatana." The inhabitants of this city, the capital of Media, no doubt knew of the existence of the inscriptions of Darius and Xerxes cut on a shoulder of the mountain; but very few of them could ever have seen them.

II.—EARLY TRAVELLERS IN PERSIA AND THEIR ACCOUNTS OF THE RUINS

The works of several of the classical writers show that the learned among the Greeks and Romans possessed a considerable amount of information about the Persians, Babylonians and Assyrians, and the cities that they built; but it is clear that very few of the classical writers had any real knowledge about the different forms of cuneiform script in which were written the victories and exploits of the Persians and others. Herodotus (IV. 87), in speaking of two memorial tablets set up by Darius, says that one of these was covered with "Assyrian letters," *γραμμάτων Ἀσσυρίων πλέος*. Strabo (XIV. 5, 9), too, on the authority of Aristobulos, says that the inscription on the tomb of Sardanapalus was written with "Assyrian letters." Diodorus (II. 13) says that the inscription on the Rock of Bihistûn was written with "Syrian letters," *Συρίοις γράμμασιν*; and Arrian (*Anabasis*, VI. 29, 7, 8) quotes the inscription on the tomb of Cyrus, which was written in the Persian language and with Persian characters, *Περσικοῖς γράμμασι καὶ ἑδήλου Περσιστί*. An apocryphal letter of Themistocles (XXI) speaks of golden censers inscribed with "old Assyrian letters," and not with the new letters which Darius had recently given to the Persians. Athenæus (Diogenes Laertius, *De Vitis Philosoph.*, VII. 49) says that the inscription on the tomb of Sardanapalus at Nineveh was in "Chaldean letters"

(*Χαλδαϊκοῖς γράμμασιν*), and Eusebius, on the authority of Berosus, says that Sennacherib set up in the city of Tarsus, which he founded, a stele inscribed in "Chaldean letters," "Chaldaïcis litteris." The Talmûdh (Sanhedrin 21*b*) also speaks of "Assyrian writing." Thus we see that the Greeks, Romans and Rabbis did not recognize that the fundamental element in Persian, Chaldean and Assyrian was the wedge; and they did not perceive that the most complicated character in any inscription was composed of a series of wedges. The first man to understand this fact was Kaempfer, who called the characters of Persepolis "cuneatæ"; and the name "cuneiform" is now commonly given to them. Christian Syrian writers probably called them "kĕthîbhâthâ dhĕ Âthûrâyê," *i.e.*, "letters of the Assyrians." Many of the Arab geographers, *e.g.*, Ibn Ḥawḳal and Iṣṭakhrî in the tenth century, and Yâḳût in the thirteenth century, knew of the existence of the ruins of Iṣṭakhr (Persepolis) and the inscriptions at Bihistûn; but none of them seems to have paid much attention to the inscriptions, and they gave no name to the characters in which they are written. The natives of Mesopotamia call the cuneiform writing "Mismârî," *i.e.*, Nail-writing; and between 1888–91 Nimrûd Rassam told me that this name was given to it first by the lime-burners who dug out the inscribed limestone slabs from the buildings of Sennacherib that were buried under the mound of Nabi Yûnis, and burnt them. The word is not given in the older Arabic dictionaries; and it is wanting in Dozy's *Supplément*.

The first account of the ruins at Takht-i-Jamshîd and Naḳsh-i-Rustam by a European traveller is that of Giosafat Barbaro, who went to Persia as Venetian ambassador in 1472; but his *Viagi fatti da Vinetia alla Tana* was not published until 1545. He visited Takht-i-Jamshîd, Pasargadæ and Naḳsh-i-Rustam. He thought that the great

figure sculptured at the last-named place was that of Samson; and this view was held by all those who wrote about the ruins, including even Niebuhr. This figure is seen on the fourth or central group of bas-reliefs at Naḳsh-i-Rustam; and the panel containing it is, according to Lord Curzon, 35½ feet long and 16 feet high. The central figure is of colossal size, and represents King Shâhpûr (Sapor I) on horseback, receiving the homage of the Emperor Valerian, who fell into his hands A.D. 260, and that of Cyriadis, or Miriades, of Antioch. Valerian is seen kneeling by the side of Cyriadis, to whom Shâhpûr is giving the *kidaris*, or symbol of sovereignty; the hands of both captives are raised in supplication (Sykes, *Persia*, I. 472). Shâhpûr held Valerian captive for seven years, during which time he employed him in helping to build the Great Dam (Shâdhurwân) across the river Dujêl, immediately below the city which the Arabs call Tustar and the Persians Shustar or Shushtar.

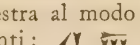
The next account we have of the ruins is that of ANTOINE DE GOUVEA, an Augustinian friar, and Professor of Theology in the College of Goa, who arrived in the Persian Gulf in 1602. He thought that Takht-i-Jamshîd was the old site of Shîrâz; and his description of the ruins is not very accurate. He noticed that the writing, which he saw in many places, is unlike that of the Persians, Arabs, Armenians and Jews (*Relaçam em que se trata das Guerras*, Lisbon, 1611). In the year of the publication of Gouvea's "Relation," JOHN CARTWRIGHT, sometime a student of Magdalen College, Oxford, published a little work called *The Preacher's Travels*, in which he described his journey to Persia with Mildenhall, who was sent on a mission to Shâh 'Abbâs with the view of obtaining permission for English merchants to trade in Persia. Cartwright had no doubt that Shîrâz was built on the site of Persepolis.

But this mistake was soon corrected by Don Garcia de Silva Figueroa, who arrived in Persia in 1617, and saw no difficulty in identifying the ruins of Takht-i-Jamshîd with the Palace of Persepolis. He was the first to make this identification. He admired the remains of the palaces greatly, but was puzzled by the order of architecture which they exhibited; for it was not "Corinthian, Ionic, Doric or mixed." As to the writing of the inscriptions, he had never seen anything like it; and he says the characters are "all three-cornered, but somewhat long, of the form of a pyramid, or such a little obelisk as I have set in the margin (*A*) so that in nothing do they differ from one another but in their placing and situation." His remarks show that he had read the account of Persepolis given by Diodorus; for he notices that the three-walled girdle of the palaces no longer existed, and he describes the tombs in the side of the hill. Don Garcia sent some of his company to Naḳsh-i-Rustam, where they saw the Sassanian bas-relief described above (see his *Letter* in Purchas *His Pilgrimes*, II. 1625, and his *Ambassade*, Paris, 1667). His description of the ruins is very good, and it is much to be regretted that the drawings made by the artist who accompanied him to Takht-i-Jamshîd were never published (Booth, *Discovery and Decipherment*, London, 1902, p. 23). Among these was the copy of a complete line of cuneiform text made from a polished marble slab about 4 feet high. Thus the credit of being the first to copy a line of cuneiform belongs to Don Garcia's artist.

The next serious student of the ruins was Pietro della Valle, an Italian pilgrim who spent five years (1616–21) in travelling about in Assyria, Babylonia, Persia and the neighbouring countries. We have full knowledge of his investigations and discoveries from his letters to his friend Mario Schipano, which were published in 1658–63; see

Viaggi di Pietro della Valle il pellegrino descritti da lui medesimo in lettere familiari, 2 vols., Brighton, 1845. He travelled all over Mesopotamia and examined the ruins of many ancient towns with great care. He gave special attention to the ruins of Babylon, and seems to have been greatly astonished at the size of the bricks, both baked and sun-dried, and the immense numbers of the latter which he saw. He selected specimens of both kinds, and some also to which the reeds and bitumen used in laying them were still attached, and took them to Italy to show to his antiquarian friends (*Lettera* XVII. Vol. I.). It is curious that he makes no remark about the inscription in Babylonian characters which must have been stamped on the baked specimens, but this was probably because he, like later travellers, regarded them as mere ornaments. In 1621 he left Isfahân, where he had been extremely well received, and made his way to Takht-i-Jamshîd, and examined the " reliquie superbissime dell'antica Persepoli " (*Lettera* XV. Vol. II.). His general impression about them was a wrong one; for he thought that they were ruins of a temple or temples, and not of a palace. There is no evidence that the Achæmenians at that period had any temples. To him the figure was that of a high-priest or king, the animals were victims for sacrifice, and so on. But Della Valle paid special attention to the inscriptions; and his remarks on the written characters are of interest. He says of the writing of the great inscription, which covers the wall from top to bottom near the lion sculptured below the hall with pillars :—

E queste iscrizioni in che lingua e lettera siano, non sisa, perchè è carattere oggi ignoto. Io solo potei notare che è carattere moltò grande, che occupa gran luogo, e che i carattere non son congiunti un coll' altro nelle parole, ma divisi e distinti, ciascun da sè solo, come i caratteri ebrei, se pur quello che io giudicava un solo carattere non fosse stato a sorte una intera parola, il che neanche si può comprendere. O parole o solo caratteri che siano, al

meglio che io potei ne copiai tra gli altri cinque, che vidi e riconobbi in piu luoghi della scrittura, e son le figure che porrò qui sotto. Ma perchè i versi delle iscrizioni erano tutti intieri, non potei conoscer se questa sorte di carattere si scriva dalla destra alla sinistra al modo degli Orientali, ovvero al contrario, dalla sinistra alla destra al modo nostro. I cinque caratteri adunque che copiai sono i seguenti:  (*Lettera* XV. Vol. II. pp. 252, 253).

From this we see that he did not know in what language or with what letters these inscriptions were written, and that the direction in which they were to be read was unknown. But he noted that the characters were very large, that they filled much space, and that they were not joined to each other in the words, but were separate and distinct; and that each stood by itself, like the Hebrew characters. On the other hand, he was prepared to think that a sign which he regarded as a single character might perhaps be a complete word, though he was unable to understand this view. But whether the signs were words or characters, he copied from among them as well as he could five which he saw and recognized in several passages of the inscriptions. And because the lines of the inscriptions were full and complete he was unable to decide whether this class of character was written from right to left, as Orientals write, or from left to right, as we write. Then follow the five characters which he copied. Continuing, he gives it as his opinion that they were characters written from left to right, and states his reasons for this view. But he is careful to add that they are mere speculations with no certainty in them. From Takht-i-Jamshîd Pietro della Valle went to Naḳsh-i-Rustam (*Lettera* XV. Vol. II. p. 260), but in his descriptions of the sculptures there he merely reproduces the views about them which were commonly held by the people of the neighbourhood.

The description of the ruins given by Sir Thomas Herbert, who arrived at Bandar 'Abbâs in 1627, are of

The Sculptured Panel on the Rock of Bihistûn. Darius I receiving the Submission of the Rebel Chiefs. The Figure above in a Winged Circle is that of Ahuramazda.

little value. He was convinced that Takht-i-Jamshîd was Old Shîrâz. In his narrative of his journey, *Some Yeares Travaille begunn anno 1626*, London, 1634, he gives a view of the ruins, the first ever published. In the later editions of his work he refers to the inscriptions, and speaks of a "dozen lynes of strange characters, very faire and apparent to the eye, but so mysticall, so odly framed as no Hieroglyphick no other deep conceit can be more difficultly fancied, more adverse to the intellect. These consisting of figures, obelisk, triangular and pyramidall, yet in such simmetry and order as cannot well be called barbarous" (ed. 1638, p. 145). It is interesting to note that Herbert calls attention to the destruction of the monuments which had already begun to take place. The natives were not only defacing the bas-reliefs, but cutting up the fine polished slabs of marble of which they were composed, to make into headstones for graves and benches. As the result of Herbert's complaints, Lord Arundel sent out a young artist to draw the monuments; but he died before he reached Persia (Booth, *Discovery*, p. 38).

A careful examination of the Achæmenian ruins was made by J. A. DE MANDELSLO in 1638; he was sent to Persia by ADAM OELSCHLÄGER (1599–1671), a German Orientalist, and his descriptions of the remains on the various sites were first published by Oelschläger, or OLEARIUS, in his *Beschreibung der muscovitischen und persischen Reise*, at Schleswig in 1647. Mandelslo was one of the first to note that the cuneiform inscriptions had either been inlaid or decorated with gold.

The first approximately accurate representation of the ruins at Takht-i-Jamshîd we owe to ANDRÉ DAULIER DES LANDES, a young French artist, born at Montoire-sur-Loir, who accompanied JEAN BAPTISTE TAVERNIER (1605–89) on his sixth journey to Persia in 1664. His sketches

and drawings were published by him in his *Les Beautés de la Perse*, Paris, 1673. Daulier Des Landes paid a second visit to the ruins in 1665, and on this occasion was accompanied by J. de Thévenot (1633–67), famous for having first brought coffee to France, who had published the first edition of his *Voyage* in 1664; later editions appeared in 1674, 1684 and 1689. He visited the ruins again in the year in which he died (1667) in company with Tavernier, and on this occasion they found Chardin hard at work describing them. Thévenot's account of the ruins added little to the existing knowledge of them; and though Tavernier visited them several times, they in no way impressed him. On one of his visits he was accompanied by Philippe Angel, a Dutch painter of still life, whom Shâh ʿAbbâs II had commissioned to make drawings of the ruins. Angel spent a week at the work, and then declared that he had wasted his time. Tavernier saw nothing to admire in them, and thought the bas-reliefs very poor things. His views about them are given in his *Les Six Voyages*, Utrecht, 1712. The only other traveller who visited Persia in the seventeenth century and wrote an account of the ruins was Jans Janszoon Strauss (died 1694), but his work (*Les Voyages de J. Struys*, Amsterdam, 1681) supplied no new information.

The early years of the eighteenth century were made memorable by the publication of the *Voyages* (Amsterdam, 1711) of Jean Chardin (1643–1713), who visited Takht-i-Jamshîd and other sites in 1666, 1667 and 1674. His work contains the best description of the ruins which had appeared; and the plates containing the drawings of Guillaume Joseph Grelot (born about 1630) were the first to give an exact idea of the character, arrangement and extent of the remains of the Achæmenian palaces. Between the time of his last visit to them (1674) and 1711,

when his *Voyages* first appeared, Chardin studied the Persian cuneiform inscriptions carefully; for he decided that they were really inscriptions, not merely decorations, and that they were to be read from left to right. He thought that they might also be read perpendicularly, but in this respect he, of course, was wrong. He, like Mandelslo and Daulier, noticed that they were originally gilded, and he was the first to publish a complete inscription in three scripts. He was also the first to publish a good description of the inscriptions at Naḳsh-i-Rustam.

In 1693–94 the appearance of two short papers in the *Philosophical Transactions* shows that the Royal Society was willing to forward the study of Persian cuneiform characters. The first of these was a letter enclosing a paper by Mr. S. Flower, published in Vol. XVII. pp. 775–6; and the second contained an "exact draught or copy of several characters engraved in marble at the mountains of Nocturestand and Chahelminar in Persia, as they were taken in November 1667 by Mr. S. Flower" (Vol. XVII. pp. 776–7). Flower was an Agent of the East India Company; and the characters which he copied were those of two complete lines of text. They were reproduced by Dr. T. Hyde in his *Historia religionis veterum Persarum*, Oxford, 1700, quarto, who described the characters as "dactuli pyramidales seu cuneiformes," and thought they were to be read from left to right. Another letter containing copies of Persepolitan characters by Nicolas Witsen (born 1640) was printed in Vol. XVIII. pp. 117–26. Witsen was the wealthy Burgomaster of Amsterdam, where his famous *Description of Tartary* was published (1692–1705).

The good work which Chardin began was carried on by Engelbert Kämpfer (1651–1716), who visited the ruins in 1686. He paid much attention to the inscriptions,

and copied a long inscription in the Babylonian character, the first ever published; but he was mistaken in regarding the signs as ideographs. He was the first to apply the term CUNEIFORM to the writing which he found on the monuments. His views on this subject, and an account of his travels, will be found in his *Amœnitates Exoticæ*, Lemgo, 1712.

Further good work in copying inscriptions was done by CORNELIS LE BRUN DE L'AIA, who was born in 1652 and died at Utrecht in 1728. He visited the ruins in 1704, drew some general views of them, and copied several inscriptions. By placing the three lines of the "Window Inscription" one below the other in parallel lines (Booth, *op. cit.*, p. 73) he proved that the inscriptions were not to be read perpendicularly. We have already seen that Pietro della Valle sent several bricks from Babylon, on which inscriptions had been stamped, to Rome; but Le Brun was the first to collect Persian antiquities; and in his collection he sent to the Burgomaster of Amsterdam at least one large stone inscribed in cuneiform. His *Voyages de Corneille Le Brun* was published in Paris in 1726; and in this work he gives good reasons for believing that the great building at Takht-i-Jamshîd was a palace, and not a temple, as several earlier travellers had thought, and that it was the palace to which Alexander the Great set fire.

During the eighteenth century the general interest in the architectural features of the ruins of the palaces of Darius and Xerxes at Takht-i-Jamshîd dwindled; but the remarks of Chardin, Kämpfer and Le Brun on cuneiform writing greatly stimulated the interest of archæologists in the inscriptions found upon them. No one in England, France or Germany believed that they could be read; and seeing the number of conflicting and contradictory views current about them, this is not to be wondered at.

Karsten Niebuhr, 1733–1815.

But the copies of inscriptions made by Kämpfer and Le Brun formed a comparatively sure foundation for investigations. Among those who turned them to good account was Karsten Niebuhr (born at Lüdingworth, Lauenburg in Holstein, 1733, died 1815). Though his natural bent led him to study mathematics, he worked at Arabic, and so fitted himself for joining the expedition which Frederic V of Denmark sent out in 1761 to explore Arabia. He travelled in Egypt, Syria, Palestine and Arabia as far south as Sanaa. Several members of the expedition died in 1762 and 1763; and Niebuhr only saved his life by adopting native habits and dress and food. In 1764 the surgeon of the expedition and Niebuhr sailed for Bombay; but the former died during the voyage, and Niebuhr landed in Bombay as the sole survivor of the ill-fated expedition. He remained there for fourteen months, and then set out on a series of travels in Mesopotamia and Persia. He went to Takht-i-Jamshîd early in March 1765, and spent about three weeks there in making ground plans of the buildings, which showed their relative positions, and in copying the inscriptions. His drawings have been adversely criticized; but there can be no doubt that they cleared up many points which the drawings of Kämpfer and Le Brun left undecided. His copies of the inscriptions were of very great value; and his bold, clear characters contributed largely to the successes gained by early decipherers. For the first time students had correct and complete copies of some of the most important inscriptions of Darius and Xerxes to work from, and some of the texts are of considerable length; several of these were published by Niebuhr for the first time. It is quite clear that he realized the student's need of complete texts, and he was the first to see that three distinct systems of characters were used in them; but there is no evidence that he guessed

that the inscriptions in the three distinct systems of characters, which always occurred in the same order, were inscriptions containing the same subject-matter in three languages. We now know that these trilingual inscriptions are written in Old Persian, Susian, and Babylonian. To Niebuhr belongs the great credit of being the first to realize the possibility of the simple signs used in one of the systems of writing being ALPHABETIC CHARACTERS; and he actually drew up an "alphabet" containing forty-two distinct signs. He also proved that the inscriptions were to be read from left to right, and that the characters were not to be read perpendicularly, like the Chinese. The net result of the publication of his copies was that many scholars devoted themselves to the study of the Persepolitan remains and inscriptions; and there is no doubt that Niebuhr's clear and systematic statements made the decipherment of Persian cuneiform possible. For a full account of his work, see his *Reisebeschreibung von Arabien und anderen umliegenden Ländern*, Amsterdam, 1774–78; and for his life, see *Lives of Eminent Men* (Useful Knowledge Society, London, 1838).

Whilst Niebuhr was travelling in the East and making copies of the Persepolitan inscriptions, etc., ABRAHAM HYACINTHE ANQUETIL DUPERRON (1731–1801) was studying in India under the Parsees, and with the help of Pehlevi and Persian was making a tentative translation of the Zend-Avesta. On his return to France he revised his work, and in due course published a translation of the whole book. This pioneer work on the Zend language was of great assistance to the early decipherers; and though it lost much of its importance after the publication of the Yaçna by Burnouf, there is no doubt that indirectly it facilitated the work of Grotefend and Lassen.

Many travellers, moved by Niebuhr's accounts, visited

Takht-i-Jamshîd in the first quarter of the nineteenth century, and among these may be mentioned:

1. James Justinian Morier (born 1780, died at Brighton 1849). He travelled through Persia in 1808–9 (see his *Journey through Persia*, London, 1812); but his descriptions of the ruins contained no new information. He visited Murghâb, and was the first to identify the Temple of the Mother of Solomon with the Tomb of Cyrus; and it was this identification that helped Grotefend to decipher the name of Cyrus.

2. Sir Gore Ouseley (born 1770, died at Beaconsfield 1844), a great Orientalist, was sent on a diplomatic mission to Persia in 1811, and J. J. Morier acted as his secretary. Ouseley was convinced that the Tomb of Cyrus was to be found at Fasa, and rejected Morier's identification of the building at Murghâb with it. He wrote a long account and made several drawings of the Murghâb edifice. He examined the ruins at Takht-i-Jamshîd, spending several days in the process, and copied several inscriptions. His party took with them masons, who detached several sections of the sculptures for them to send to England, some for Ouseley himself and some for Lord Aberdeen (Morier, *Second Journey*, London, 1818, p. 75; William Ouseley's *Travels in Persia*, London, 1819–1823, Vol. II. p. 255). These sculptures were afterwards given to the British Museum; and they are now exhibited on the west wall of the Assyrian Transept. They have a special value in the National Collection, which, unfortunately, contains very few specimens of Achæmenian sculpture.

Many of the travellers who visited Takht-i-Jamshîd in the nineteenth century brought back reports concerning the steady destruction of the monuments there at the hands of natives and foreigners. In the early 'eighties it increased to such an alarming extent that English archæ-

ologists considered seriously what steps could be taken to arrest it. As the Persian Government had neither the wish nor the power to safeguard the monuments, the lovers of Old Persian art and architecture decided that casts of the more important of the bas-reliefs should be made, so that at least faithful presentments of them might be available for study. In 1887 Mr. (now Sir) Cecil Harcourt Smith, of the Department of Greek and Roman Antiquities in the British Museum, was appointed a member of the diplomatic mission which was dispatched from England to Persia, and whilst there he surveyed the monuments at Takht-i-Jamshîd, and made a list of the bas-reliefs, etc., of which he thought moulds for casts should be made. He collected money from Lord Savile and other friends, and sent out the *formatore* Giuntini and his son, under the direction of Mr. Herbert Weld Blundell, to make the moulds required. The moulds were brought to England; and one complete set of casts was presented to the British Museum, and another to the Nottingham Castle Museum. Selections from sets were purchased for the Museum of the Louvre, the Imperial Museum in Berlin, and other large museums. The sculptures and inscriptions of which moulds were made were: 1. Xerxes seated on his throne with Ahuramazda above him; below are three rows of figures. 2. The stairway of Artaxerxes Ochus. 3. Procession of bearers of offerings. From the staircase. 4. Frieze with figures of men and animals. From a passage on the north side of the Great Hall of Xerxes. 5. Portion of another frieze. 6. Slab sculptured with a figure of Cyrus. 7. Slab sculptured with a figure of one of the "Immortal Guards." 8 and 10. Bas-reliefs, king stabbing a mythological monster. 9. King stabbing a lion. 11. Slab sculptured with the figure of a lion. 12. Inscription of Xerxes. The descriptive list of the casts that was published

soon after they were made is out of print and unobtainable; and I owe the short list given above to the kindness of Mr. G. Harry Wallis, Curator of the Nottingham Museum. For details of the mission of which Sir Cecil Smith was a member, see Dickson, W. K., *Life of Major-General Sir Robert Murdoch Smith*, London, 1901, p. 810 ff.

3. Sir Robert Ker Porter (1777–1842) visited Murghâb, Takht-i-Jamshîd, Naḳsh-i-Rustam and Naḳsh-i-Rajab in 1818, and spent about three weeks in making plans of the buildings, drawing the monuments, and copying the inscriptions. He was a trained artist, and knew how to draw to scale; and the two large quarto volumes in which he enshrined his drawings contain by far the best account of the Achæmenian remains existing in English. His work, *Travels in Georgia, Persia, Armenia and Ancient Babylonia*, London, 1821, has only been superseded by the fine photographic reproductions published by Stolze and Nöldeke in their great work *Die achämenidischen Denkmäler von Persepolis*, Berlin, 1882, 2 vols., folio. Ker Porter also published drawings of the sculptures of Naḳsh-i-Rustam, and correctly identified the tomb of Darius I; but he thought that the ruins were older than the time of that king, and attributed them to the early Persian king Jamshîd, whom, curiously enough, he identified with Shem, the son of Noah.

4. The most famous traveller to visit Persia in the first quarter of the nineteenth century was Claudius James Rich, who was born at Dijon in 1787 and died of cholera on Oct. 5, 1821, and was buried in the Jân Numâ at Shîrâz. He travelled all over Palestine and Syria; and making his way eastwards, he visited Mardîn, Môṣul, Baghdâd and Baṣrah, and then went on to Bombay. In 1807 he was appointed Resident and Consul-General of Baghdâd, and his official position enabled him to make excavations at

Babylon, and to explore many ancient sites. Though his chief object was to collect Arabic, Persian and Syriac manuscripts, he took great interest in the decipherment of the cuneiform inscriptions, as his work at Babylon and the researches he made during his four visits to Môṣul show. Wherever he went, he collected antiquities, in this respect imitating Kämpfer; but he never mutilated bas-reliefs or sculptures after the manner of the members of Sir Gore Ouseley's Mission to the Shâh of Persia in 1811. His collection of Assyrian and Babylonian antiquities, which was purchased by the British Government on May 3rd, 1825, for £1000, contained four historical baked clay cylinders, inscribed in cuneiform, thirty-two clay tablets and fragments inscribed in cuneiform, thirteen bricks stamped with inscriptions in the Babylonian character, a black stone memorial tablet inscribed in cuneiform, a large inscribed boundary-stone, and several small miscellaneous objects. All these things he acquired by purchase from the natives at Ḥillah; and there is little doubt that they were excavated by the men who had worked for M. l'Abbé J. Beauchamps, Vicaire-général de Babylone in 1784, when he succeeded in penetrating the foundations of the Ḳaṣr at Babylon. Beauchamps specially mentions "solid cylinders, 3 inches in diameter, of a white substance, covered with very small writing, resembling the inscriptions of Persepolis described by Chardin." The "master mason" told him that they sometimes found such in the ruins, but that he left them among the rubbish as useless. He wanted bricks to build houses with at Ḥillah, and not inscribed clay cylinders! Beauchamps took some of the bricks back to France with him, and presented them to his friend, the Abbé Barthélemy. These facts about Beauchamps's work at Babylon are taken from an English translation of his original article written in French, which he published in the *Journal des*

Sçavans in 1791. The English translation appeared in the *European Magazine*, Vol. XXI, London, 1792, pp. 338–342. The great French Dictionary of Biography states that the article by Beauchamps was published in the *Journal* for 1791; but the only copy of the *Journal* which I have been able to consult—that in the British Museum Library—lacks the part for July 1791, which presumably contains M. Beauchamps's article. I heard that a file of the *Journal* existed in a library in the north of England, but was subsequently informed that it had been destroyed because the Institution wanted more room for modern books.

But to return to Rich and his work. During his visits to Môṣul and his stay at Baghdâd he spared no effort in collecting cuneiform inscriptions, and having full belief in the value of Grotefend's system of decipherment, he took care that a copy of every cuneiform text that came under his notice should be sent to Grotefend either by himself or by his secretary, Karl Bellino, who deserves more than a passing mention of his name. Karl Bellino was born on Jan. 21st, 1791, at Rothenburg am Neckar, and died at Môṣul on Nov. 13th, 1820. He studied Oriental languages at Vienna, where he was introduced to Rich, who made him his secretary; subsequently he became an interpreter and captain in the service of the Hon^ble. East India Company. He went to Baghdâd with Rich, and developed an extraordinary facility in copying Assyrian cuneiform inscriptions. He made a copy of the inscription on a cylinder of Sennacherib (B.C. 705–681), which Rich had obtained at Nabi Yûnis, and which is now known as the "Bellino Cylinder" (Brit. Mus. No. 22502); and when Grotefend received it from Rich, he published it in the "Abhandlungen" of the Academy of Sciences at Göttingen. Another copy was made from the cylinder by Layard, who published it in his *Inscriptions*, London, 1851

(pll. 63, 64); but, according to Fox Talbot, Bellino's copy is the more accurate, and is the "most wonderful instance of patient accuracy which is to be found in the whole range of archæological science" (*Jnl. R.A.S.*, Vol. XVIII. 1861, p. 76 ff.). The inscriptions published by R. Ker Porter are taken from Bellino's copies; and James Silk Buckingham (1786—1855) and other travellers were greatly indebted to Bellino for exact information about cuneiform inscriptions. Rich in his *Residence*, Vol. II. p. 126, describes him as a "young man of a singularly affectionate disposition, whom no one could know and not love"; and he was generally known as "Mr. Rich's amiable and accomplished young friend." The high esteem in which Rich held him is touchingly shown in a letter to Joseph von Hammer, in which he describes Bellino's last days and death, which is printed by Fleming in *Beiträge zur Assyriologie*, Vol. I. pp. 84, 85. To Bellino belongs the credit of being the first to copy with considerable accuracy a long Assyrian text; and the printed copy of it suggests that, had he lived, he would have become a competent editor and decipherer of cuneiform texts.

The death of Bellino in 1820 was a great blow to Rich; and it is easy to understand why he turned his attention to other fields of cuneiform research. In 1821 we find him at Bushire, whence he went on to Shîrâz and thence to Takht-i-Jamshîd, or Persepolis. He first visited Murghâb, where he copied the inscription, which was well known; but he doubted if the "Temple of the Mother of Solomon" was the Tomb of Cyrus, as Morier had asserted and Ouseley and others denied. He made a brief examination of Naḳsh-i-Rajab and the ruins of Iṣṭakhr, the Sassanian capital, and then returned to Takht-i-Jamshîd, where he spent a week, and copied all the inscriptions, except one of Xerxes. Soon after his return to Shîrâz he was attacked

by cholera and died, and Oriental philology suffered a terrible loss. His copies of texts and his literary efforts were not published until 1836, by which time they had lost most of their value. But his *Narrative of a Residence in Koordistan*, London, 2 vols., 1836, created a deep impression on Oriental scholars; and it was entirely due to its publication that the French Government established a Vice-Consulate at Môṣul, and sent Botta to excavate Nineveh, and that Stratford Canning despatched Layard to excavate both Nineveh and Calah (Nimrûd). And it must never be forgotten that the beginning of the great and splendid collection of Assyrian and Babylonian antiquities now in the British Museum was Rich's collection of inscribed cylinders, tablets, bricks, and miscellaneous antiquities from Ḳuyûnjiḳ, Nabi Yûnis and Bâbil, which became the property of the nation in 1825. And the value of his collection was great, from the excavator's point of view; for the cylinders and tablets showed him and others the exact spots at Ḳuyûnjiḳ and Bâbil where such things were to be obtained. Later excavators of both sites obtained their best results by following up the clues afforded them by natives seeking for bricks at Bâbil with which to build houses, and for alabaster bas-reliefs at Nineveh to burn into lime for building purposes.

Travellers to the Rock of Bihistûn

Having summarized the descriptions of the Achæmenian ruins by European travellers from Barbaro in 1472 to Rich in 1821, we must now mention briefly the travellers who visited the great Rock of Bihistûn, with its trilingual inscription of Darius I, and Mount Elvend (Alwand). One of the earliest and most trustworthy accounts of the sculptures of Bihistûn is that of Ambrogio Bembo (1652–1705), a

Venetian merchant who travelled in Persia in the last quarter of the seventeenth century. Considering that he had no means of seeing the figures, except at some distance, his description of them is good (Morelli, *Dissertazione*, p. 64).

Jean Otter, a Swedish Orientalist (born at Christiania in 1707, died in Paris 1748), who travelled in Persia in the interests of French commerce between 1734 and 1744, examined the sculptures; but his remarks on them (see his *Voyage*, Paris, 1748, Vol. I. p. 187) are of little value.

The great French naturalist, G. A. Olivier (1736–1814), travelled in Persia between 1792 and 1798, examined the sculptures, and, like Otter, made a drawing of them, which he published in his *Voyage* (Vol. III. p. 24). But he must have drawn them while standing on the ground; and, not being acquainted with the general character of such antiquities, his drawing is very inaccurate. Paul Ange Louis de Gardane (1765–1822), secretary to his brother Claude, French Ambassador in Teheran in 1807, described the sculptures, and thought that the figure of Ahuramazda was a cross, and that the twelve figures below it represented the Twelve Apostles (see his *Journal d'un Voyage*, Paris, 1809, p. 83).

Sir J. M. Kinneir (1782–1830), who made many journeys into Persia from Bushire in 1808–1809, was the first to ascribe the bas-reliefs to the same period as the sculptures at Takht-i-Jamshîd, or Persepolis (*Travels in Asia Minor*, London, 1813).

G. T. Keppel (Earl of Albemarle, 1799–1891) described the bas-relief at great length in his *Personal Narrative*, London, 1827, Vol. II. p. 80 ff., but threw no light on its meaning.

Ker Porter in his *Travels* (II. 159 ff.) gave a long description of the Bihistûn sculptures; and though he

Sir Henry Creswicke Rawlinson, Bart., F.R.S., the Father of Assyriology.

made his drawings of them from the ground, they are singularly accurate, and are the best that had appeared up to that date (1822). He thought that the famous bas-relief had been made by Shalmaneser, "King of Assyria and the Medes," to commemorate his "total conquest" over Israel. In the row of figures standing before Darius he saw representatives of the Ten Tribes; in the royal figure he saw Shalmaneser, "the son of the renowned Arbaces"; and in the high fool's cap on the head of Skunka he detected an "exaggerated representation of the mitre worn by the sacerdotal tribe of Levi." And the inscription on one figure he regarded as a phylactery. This is a typical example of the archæological imagination of the period.

None of the travellers mentioned above made any serious attempt to copy the inscriptions on the Rock of Bihistûn; but this is not to be wondered at, seeing that none of them was provided with the ropes, ladders, etc., necessary for reaching the inscriptions, which are cut upon the face of an almost perpendicular rock at a height of 500 feet or so from the ground. The first to succeed in copying the inscriptions was Henry Creswicke Rawlinson, when a lieutenant in the service of the Hon^ble. East India Company. He was born at Chadlington Park, Oxfordshire, in 1810, and died of influenza in 1895. When at school at Ealing he devoted himself wholeheartedly to the study of the Greek and Latin historians; and being of fine physique, he became no mean athlete. When he was sixteen years of age, a nomination was secured for him from the Hon^ble. East India Company, and he arrived in India in 1827. Here he studied Persian, Arabic and Hindûstânî to such good purpose that in 1828 he was made interpreter and paymaster to the 1st Bombay Grenadiers. He became at this time a fine Persian scholar, and learned to recite by

heart long passages from the great Persian poets, an attainment which he found to be all-important when, later, he was brought into close contact with the Shâh and his Court. It will be remembered that when the Shâh visited England in 1875, Rawlinson was specially appointed by the British Government to discuss matters of political importance with him in His Majesty's native tongue. His splendid horsemanship made him a very popular officer with all classes of natives. He served five years with the 1st Bombay Grenadiers, and was then (1833) employed on special duty in the Intelligence Department. In 1835 he was selected for service in Persia, and was sent to Kirmânshâh to act as Military Adviser to the Shâh's brother, the Governor of the Province. On his way thither, in April, he heard that cuneiform inscriptions existed on one of the rocky slopes of Mount Elvend, or Alwand (the " Aurant " of the Avesta and the " Orontes " of classical writers), which lay about eight miles from the city; and he went there and copied them. The first to notice these inscriptions was Kinneir, who examined them in 1810, and described them in his *Geographical Memoir* in 1813 (p. 126). Morier also examined them in 1813, when the natives told him that they were called " Ganj Nâmah," *i.e.*, " Treasure-Book," because it was believed that the inscriptions, if read, would indicate where hidden treasure was to be found. Ker Porter saw them, but had no time to copy them; and Karl Bellino, who set out to copy them in 1820, died at Hamadân on the way. It is said that copies of them were made by Stewart and Vidal about 1827; but they were not published until 1836 (Booth, *op. cit.*, p. 96). Thus it is quite clear that Rawlinson obtained no help from the writings or copies made by any one who had travelled in Persia before him. The two inscriptions which he copied at Elvend in 1835, and re-collated in 1836, formed the

material from which he obtained the names of Darius and Xerxes, and so prepared him for his subsequent discoveries in the Persian cuneiform inscriptions. The great importance of these inscriptions is described towards the end of the present chapter.

On arriving at Kirmânshâh, Rawlinson heard of the great inscription and reliefs on the Rock of Bihistûn; and he visited it frequently during the summer and autumn of 1835. The Rock lies about 22 miles west of Kirmânshâh; and being a remarkably good horseman, he thought lightly of this distance. On one occasion, when it was necessary to warn the British Ambassador at Teherân of the arrival of the Russian Agent at Herât, he rode 750 miles in 150 consecutive hours. During his visits to the Rock in 1835, he began to copy the inscriptions; and it is said that he managed to reach the ledge which projects immediately below the text without the help of a rope or ladder. An illness necessitated a visit to Baghdâd at the end of 1835; but in the spring of 1836, whilst conducting manœuvres with one of the Shâh's armies, he received permission to visit Shûsh (Susa) and Shustar. On his return to Kirmânshâh he found a mass of papers from Colonel Taylor, the British Resident at Baghdâd, which told him of the progress made by Grotefend in Persian decipherment.

During the summer and autumn of 1836 and the first half of 1837 he continued the copying of the Bihistûn inscription. At the end of that year he had copied about 200 lines of the Persian text. He returned to Baghdâd in 1838, and remained there, working at his copies, for nearly a year. In 1839 the Afghan War broke out; and in 1840 he was appointed Political Agent in Kandahâr. He led a body of Persian cavalry, which he himself had enrolled and trained, at the battle which was fought outside Kandahâr on May 29th, 1842, and won a conspicuous success. He

assisted at the capture of Ghazni, and returned to India before the close of the year. Here, as Lane Poole says, his military career ended, and he declined the tempting offers made to him by Lord Ellenborough, for his heart was set upon returning to Baghdâd, where he could take up his cuneiform studies once more. At this time Colonel Taylor, Political Agent in Turkish Arabia, retired; and Rawlinson succeeded him in 1843, and took up his duties in Baghdâd. Early in the summer of 1844 he set out for Bihistûn, accompanied by Mr. Hester and Captain Felix Jones, R.N.; and with their help he made complete copies of the Persian and Susian Versions. His task was difficult; and as many incorrect statements are current about it, we quote his own description of the way in which he overcame his initial difficulty. He says :—

"On reaching the recess which contains the Persian text of the record, ladders are indispensable in order to examine the upper portion of the tablet; and even with ladders there is considerable risk, for the foot-ledge is so narrow, about 18 inches, or at most 2 feet in breadth, that with a ladder long enough to reach the sculptures sufficient slope cannot be given to enable a person to ascend, and if the ladder be shortened in order to increase the slope, the upper inscriptions can only be copied by standing on the topmost step of the ladder, with no other support than steadying the body against the rock with the left arm, while the left hand holds the note-book and the right hand is employed with the pencil. In this position I copied all the upper inscriptions and the interest of the occupation entirely did away with any sense of danger.

"To reach the recess which contains the Scythic translation of the record of Darius is a matter of far greater difficulty. On the left-hand side of the recess alone is there any foot-ledge whatever; on the right hand, where the recess, which is thrown a few feet further back, joins the Persian tablet, the face of the rock presents a sheer precipice, and it is necessary therefore to bridge this intervening space between the left hand of the Persian tablet and the foot-ledge on the left hand of the recess. With ladders of sufficient length, a bridge of this sort can be constructed with difficulty; but my first attempt to cross the chasm was unfortunate, and might have been fatal, for, having previously shortened my only ladder in order to obtain a slope for copying the Persian upper legends, I found, when I came to lay it across to the recess in order to get at the Scythic translation, that it was not sufficiently long to lie flat on the foot-ledge beyond. One side of the ladder

would alone reach the nearest point of the ledge, and, as it would of course have tilted over if a person had attempted to cross in that position, I changed it from a horizontal to a vertical direction, the upper side resting firmly on the rock at its two ends, and the lower hanging over the precipice, and I prepared to cross, walking on the lower side and holding to the upper side with my hands. If the ladder had been a compact article, this mode of crossing, although far from comfortable, would have been at any rate practicable; but the Persians merely fit in the bars of their ladders without pretending to clench them outside, and I had hardly accordingly begun to cross over when the vertical pressure forced the bars out of their sockets, and the lower and unsupported side of the ladder thus parted company from the upper, and went crashing down over the precipice. Hanging on to the upper side, which still remained firm in its place, and assisted by my friends, who were anxiously watching the trial, I regained the Persian recess, and did not again attempt to cross until I had made a bridge of comparative stability" (*Archæologia*, Vol. XXXIV., 1852, p. 74).

But the ropes and ladders, etc., which Rawlinson had with him in 1844 were insufficient to enable him to make a copy of the Babylonian Version; and he was obliged to return to Baghdâd with copies of the Persian and Scythic (Susian) Versions, and the Babylonian epigraphs above the figures of the bas-relief. In 1847 he returned to Bihistûn in order to obtain a copy of the text of the Babylonian Version. Its position on the Rock made it impossible for him to copy it by hand on sheets of paper, as he had copied the other Versions, and he determined to make a paper "squeeze"; how he did this he tells us in the following extract:—

"The Babylonian transcript at Behistûn is still more difficult to reach than either the Scythic or Persian tablets. The writing can be copied by the aid of a good telescope from below, but I long despaired of obtaining a cast of the inscription; for I found it quite beyond my powers of climbing to reach the spot where it was engraved, and the cragsmen of the place, who were accustomed to track the mountain goats over the entire face of the mountain, declared the particular block inscribed with the Babylonian legend to be unapproachable. At length, however, a wild Kurdish boy, who had come from a distance, volunteered to make the attempt, and I promised him a considerable reward if he succeeded. The mass of rock in question is scarped, and it projects some feet over the Scythic recess, so that it cannot be approached by any of the ordinary means of climbing. The

boy's first move was to squeeze himself up a cleft in the rock a short distance to the left of the projecting mass. When he had ascended some distance above it, he drove a wooden peg firmly into the cleft, fastened a rope to this, and then endeavoured to swing himself across to another cleft at some distance on the other side; but in this he failed, owing to the projection of the rock. It then only remained for him to cross over to the cleft by hanging on with his toes and fingers to the slight inequalities on the bare face of the precipice, and in this he succeeded, passing over a distance of twenty feet of almost smooth perpendicular rock in a manner which to a looker-on appeared quite miraculous. When he reached the second cleft the real difficulties were over. He had brought a rope with him attached to the first peg, and now, driving in a second, he was enabled to swing himself right over the projecting mass of rock. Here with a short ladder he formed a swinging seat, like a painter's cradle, and, fixed upon this seat, he took under my direction the paper cast of the Babylonian translation of the records of Darius. . . . I must add, too, that it is of the more importance that this invaluable Babylonian key should have been thus recovered, as the mass of rock on which the inscription is engraved bore every appearance, when I last visited the spot, of being doomed to a speedy destruction, water trickling from above having almost separated the overhanging mass from the rest of the rock, and its own enormous weight thus threatening very shortly to bring it thundering down into the plain, dashed into a thousand fragments" (*Archæologia*, Vol. XXXIV., 1852, p. 75 f.).

When Rawlinson returned to Baghdâd in 1844, he found that the copies of the Persian text which he had made in 1835–1837 were useless, and he therefore prepared from the note-books which he had just filled at Bihistûn a new and complete copy in sheets for publication. Later the sheets were bound in a single volume, which the late W. S. W. Vaux, Secretary of the Royal Asiatic Society, showed me in his rooms in Cheyne Terrace in 1875 and 1876. Who inherited his books after his death is unknown to me; but a few months ago some of his books were sold, and it is possible that this volume was among them. The paper "squeezes" referred to in the preceding paragraph were brought to London by Rawlinson, and were exhibited by him in the rooms of various learned Societies before whom he lectured. They were presented by him subsequently to the Trustees of the British Museum, and were stored

for some years behind the " bull " on the west wall of the Nimrûd Central Saloon. They were often taken out for examination by scholars, and suffered greatly from being handled; in an evil hour mice found their way behind the " bull," and destroyed many sections. From the remainder specimens were selected; and these are exhibited in the Second Northern Gallery in the British Museum. And whilst the student and the mice together were destroying the " squeezes," water and wind were obliterating the inscription on the Rock itself, from which they were made.

In 1895–1896 the Trustees decided to publish a *Corpus* of cuneiform inscriptions; and it was found necessary to issue a revised transcript of the Babylonian Version of the Bihistûn Inscription which Rawlinson had included in the third volume (pll. 39 and 40) of " The Cuneiform Inscriptions of Western Asia." When the " squeezes " were taken out and examined, it was found that many of the sheets were wanting, and that the portions which remained were in such a state of ruin that they were quite useless for collation purposes. In fact, no trustworthy revision of the text without a new collation made on the Rock itself was possible. In 1904 the late Mr. L. W. King, Assistant in the Department of Egyptian and Assyrian Antiquities in the British Museum, was conducting excavations for the Trustees at Ḳuyûnjiḳ (Nineveh); and he was instructed to proceed to Bihistûn in order to collate all the texts, and to make measurements and take photographs. His colleague in the Department, Mr. R. Campbell Thompson, was also despatched to Môṣul to facilitate the work. Prof. Williams Jackson, an American, had succeeded in 1903 in reaching the ledge below the Persian Version; and the result of his collation of certain doubtful passages in the lower portions of the first four columns of that Version

showed that it was necessary to collate the whole text (see his *Persia, Past and Present*, New York, 1906, p. 186 ff.).

Mr. L. W. King left Môṣul on the 19th of April, and arrived at the Rock of Bihistûn on the 6th of May. To reach the inscription, he decided to employ cradles suspended from above it; it was the only possible way, as Rawlinson's example showed, and the only method by which a satisfactory copy of the text could be made. By climbing up a ravine, King succeeded in reaching a natural ledge about 200 feet above the inscription. Crowbars were then driven into the crevices of the rock; and ropes, made fast to them, were shaken down over the face of the rock until their ends reached the ledge which is hewn in the surface of it below the inscription, and is rather less than 200 feet above the foot of the cliff. This lower ledge was reached by climbing from below. Wooden cradles were slung from the pendent ropes, and were raised or lowered as required by natives stationed on the natural ledge beside the crowbars. The results of the labours of King and Thompson were published in an official volume entitled *The Sculptures and Inscription of Darius the Great on the Rock of Bihistun in Persia*, London, 1907. It contains the complete texts of the Persian, Susian and Babylonian texts, with transliterations, translations, etc. Plates reproduced from photographs are a valuable feature of the book; and it is especially gratifying to feel that the coping-stone of the building which Rawlinson founded has been placed upon it by two officers of the British Museum, who were also his fellow-countrymen.

III.—THE FIRST ATTEMPTS TO DECIPHER THE PERSIAN CUNEIFORM INSCRIPTIONS

To many of the travellers who examined the inscriptions at Takht-i-Jamshîd it seemed a waste of time to discuss them. Some supposed that the characters represented writing of some kind; and others, like Dr. Thomas Hyde (1636–1703), the learned Orientalist, "stupor mundi," as he was called, regarded them merely as a species of ornamentation. But the first traveller to prove that the latter view was erroneous was Niebuhr; and with the publication of his *Voyage* in 1780 the work of scientific decipherment began. Strictly speaking, he was not a decipherer, but it is clear from his work that he had devoted much time and attention to the subject; had he failed to publish his copies of texts and his luminous remarks, the decipherment of them would have been deferred for some two or three generations. He was the first to copy the characters with accuracy, and to give their correct forms. He showed the true limit of each character, and marked with a dot where each ended. He first recognized that the inscriptions were trilingual, and proved that they were to be read from left to right; and he was the first to draw up an alphabet of Persian characters. His alphabet contained forty-two characters, and of these thirty-two are accepted by scholars to-day. Of the remaining ten, nine are incorrect, and the tenth is the sign ⟨ (so on the Rock) which divides words. He guessed correctly so much that it is hard to understand how he failed to divine the purpose of this wedge (see Plate XXIII. facing p. 106 of his *Voyage*, Vol. II.).

The first to make use of Niebuhr's copies was Olaus Gehrard Tychsen (1734–1813), a great Hebraist and Rabbinic scholar. He published a small work on the

Egyptian hieroglyphs (*Ueber die Buchstabenschrift der alten Aegypter*, Göttingen, 1790), and a tract on the cuneiform inscriptions entitled *De Cuneatis Inscriptionibus Persepolitanis Lucubratio*, 1798. He adopted many of Niebuhr's views; but he arbitrarily assigned phonetic values to the cuneiform characters, and then tried to read a meaning into groups of them by comparing the sounds of his words with words in several Semitic and Aryan languages. Like Niebuhr, he did not suspect that the sign 𒁹 marked the division of words. It is interesting to note that three or four of his phonetic values are correct (Booth, *op. cit.*, p. 154). According to him, the inscriptions were records of Arsaces, the founder of the Parthian kingdom.

The perusal of Niebuhr's *Voyage* incited F. C. C. Münter (1761–1830) to attempt to decipher the Persian cuneiform inscriptions; and he began his work by proving that Tychsen's estimate of their age was wrong, and that they could only belong to the period of the Achæmenian kings. He thought that the first form of writing (Persian) was alphabetic, the second (Susian) syllabic, and the third (Babylonian) ideographic. The three languages were, according to Tychsen, Parthian, Median, and Bactrian, and according to Münter Zend, Pehlevi and Parsi. He recognized the use of the diagonal wedge as the divider of words. He counted the number of times certain signs occurred in the inscriptions published by Niebuhr, and concluded that those which appeared most frequently must be vowels, a, ā, i, o, u; but of all the guesses that he made only two were correct, and he can only be credited with discovering the values of 𒀀 *a* and 𒁀 *b*. Both Tychsen and Münter observed that one group of seven signs, 𒀭𒀀𒀀𒁹𒀀𒀀𒁹, occurred often in the inscriptions; and at first both thought that the signs represented the name of a king. Later, Münter thought they formed a

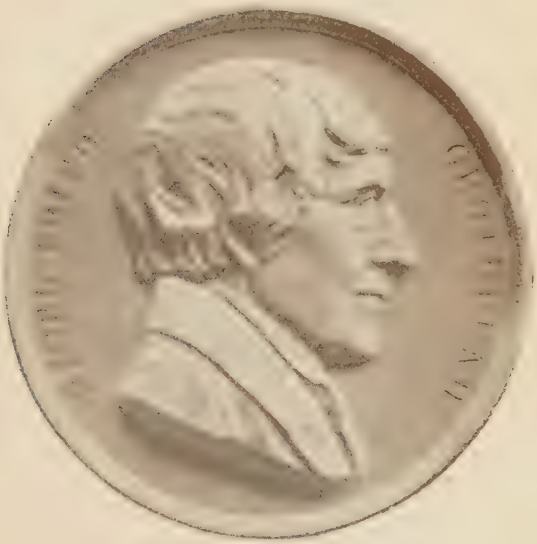
title, perhaps "King of kings," and that the word that came before it must be the name of a king. He was very nearly right, for the seven signs (which read KH-SHA-A-YA-TH-I-YA) mean "king"; but he was puzzled by the signs which formed what he termed an "inflection" following the word for "king," and unfortunately turned aside from the path which led to true decipherment. Thus neither Tychsen nor Münter helped to solve the difficulty.

The first real success in the decipherment of Persian cuneiform we owe to G. F. Grotefend (1775–1853), a distinguished scholar, but not an Orientalist. He had a natural aptitude for solving pictorial puzzles, rebuses, riddles, enigmas, and acrostics; and when his friends heard that he was devoting himself to the decipherment of Persian cuneiform, about which the scholars throughout Europe were talking, some of them took the opportunity of pointing out how limited his knowledge of Oriental matters was. When he began to study Niebuhr's texts is not known; but it is certain that he read Münter's papers and accepted many of his general statements as to the period of the texts, etc., but not his system of transliteration of the cuneiform alphabet drawn up by Niebuhr. Grotefend's first step was made under inspiration derived from A. I. Silvestre de Sacy (1758–1838), who, in his *Mémoires sur diverses Antiquités*, Paris, 1793, published translations of some of the short Pehlevi inscriptions found at Naḳsh-i-Rustam. Some of these, like the epigraphs of the Bihistûn inscription over the figure of Darius, were written above figures of kings; and de Sacy showed that they contained the names of the kings and their fathers, and the title "King of kings."

From these facts Grotefend rightly deduced that the scribe who drafted the Pehlevi epigraphs had followed the old Persian tradition, and that from the Persian inscriptions he ought to be able to obtain the names of the Persian

kings whom they commemorated. He guessed, too, that the Persian texts would also contain the title "King of kings." Then, remembering the group of seven characters that Münter thought might form the word for "king," Grotefend saw at once that the repetition of the seven characters, with additional characters, following, must mean "of kings." After an examination of the two short inscriptions published by Niebuhr (Band G, Plate XXIV), he came to the conclusion that they commemorated two different kings, and that, as in the Pehlevi texts, each king was called "great King, King of kings." The first name in B is , and following the analogy of the Pehlevi, he assumed that it was the name of a king; the first name in G is , and this he assumed to be a king's name. He noticed that the name in B also occurred in G (line 3), but spelt with an additional character thus, ; and he thought that this character represented a case-ending, probably of the genitive. This suggested that the king in G was the son of the king in B. But who were the kings mentioned? They certainly could not be Cyrus and Cambyses, for if they were, both names would begin with the same letter; and the only two other great Achæmenian kings were Darius and Xerxes. In line 4 of B Grotefend saw the group of signs (with the termination or case-ending), which again suggested a proper name and a relationship to the king who had B written. Grotefend then guessed that the group of signs without the case-ending represented the name Hystaspes, and decided that the king who had B written was Darius. Applying the same kind of argument to G, he decided that the king who had that inscription written was Xerxes. All this guessing was based

G. F. Grotefend.



G. F. Grotefend.

on the assumption that the Persian inscriptions were drawn up on the same principle as the Pehlevi epigraphs translated by de Sacy. The next difficulty was to find the phonetic values of the characters used in writing the three royal names and " King of kings."

By further guessings, some of which were based on the forms in Zend of the words which he thought the Persian characters represented, he succeeded in assigning to TWELVE characters phonetic values which are now accepted as correct; but he failed to assign correct values to the remaining letters of the Persian alphabet. He first published the result of his labours in 1802 at Göttingen; and in the following year de Sacy gave a full account of them, together with the text, transliteration, and translation of Niebuhr's inscriptions B and G in Millin's *Magasin Encyclopédique*. In subsequent years Grotefend attempted to transliterate and translate all the Persian cuneiform inscriptions that he could find, especially those published by Niebuhr; but when he professed to find in one the name of the ancient Persian king JAMSHÎD, scholars became sceptical about the accuracy of his translations. His knowledge of Zend and Pehlevi was comparatively slight, and for a time he guessed recklessly in making his translations, having no long Pehlevi inscriptions to guide him. The result was that he published many translations and statements about the trilingual inscriptions which even his contemporaries could see were absurd. After 1815 he made no contribution of importance to the decipherment of the Persian cuneiform inscriptions. In 1810–1811 Rich, who believed wholeheartedly in Grotefend's system, began to send to him through Bellino copies of all kinds of inscriptions in cuneiform, Persian, Assyrian, and Babylonian; and Grotefend examined them, but made nothing of them, for his general views about them were absolutely wrong. And to the very end of his life he clung

to many of them, in spite of the discoveries of Rask, Burnouf, Lassen and Rawlinson, and was convinced that he was the one man who could decipher and interpret the great mass of Semitic and Sumerian material which Botta, Layard and others had discovered at Nineveh, Calah, and Babylon.

The only scholar of importance who refused to accept Grotefend's alphabet was J. A. Saint Martin (1791–1832), a French Orientalist, whose sole claim to notice is that he gave the correct value of V to the character 𒀸 and the partially correct value of Y (instead of I) to the character 𒁹. He formulated an alphabet which contained several of the correct phonetic values already ascertained by Grotefend; but all the other values are wrong. There is nothing correct in his papers, so far as decipherment is concerned, which he did not borrow from others.

A scholar who did much to guide decipherers of the Persian inscriptions into the right path was Rasmus Christian Rask (1787–1832), a distinguished Zend and Pehlevi scholar. He studied Grotefend's alphabet and transliterations, and concluded that the language of the Persian inscriptions resembled Zend, which he proved to be as old as, if not older than, the language used in the Achæmenian inscriptions. He showed that the genitive plural 𒁹 𒉡 𒁹 𒀀𒈾, which Grotefend transliterated A-TSCH-A-O, should be read A-N-A-M, and thus discovered the correct reading of two of the letters of the Persian alphabet, 𒉡 N and 𒀀𒈾 M. But Rask was wholly devoted to his study of Zend and Pehlevi; and, beyond making several valuable suggestions as to the relationship of Zend to the Old Persian language, he did nothing to help forward the decipherers.

The decipherment received fresh impetus in 1836 by the publication of the two trilingual inscriptions from Mount

Elvend and one from Vân (Wân) by Eugene Burnouf (1801–1852), the distinguished Zend scholar. Although Abraham Hyacinthe Anquetil Duperron (1731–1801) had given new life to the study of Zend when he published his translation of the Zend-Avesta in 1771, interest in the language declined until Burnouf realized its philological importance for the study of Old Persian. When his *Commentaire sur le Yaçna* (a liturgical work which formed the Third Part of the Avesta proper) appeared in 1834, its great value was at once recognized by all those who were engaged in the decipherment of the Persian inscriptions. In his paper, *Mémoire sur deux Inscriptions Cunéiformes*, Burnouf tried, with the sixteen letters of the Persian alphabet of which he knew the true values, to translate the Elvend inscriptions, and to transliterate a list of names of countries. He drew up an alphabet containing thirty-three cuneiform signs, and claimed that he had found the true values of twelve signs; but as a matter of fact he only made out the values of two letters, viz., K and Z; for of his twelve values eight were wrong, and two were borrowed from his predecessors. But Burnouf's contribution to the decipherment was very important, for his great knowledge of Zend and Sanskrit enabled him to supply the meanings of several words in the inscriptions which he could only partially transliterate. He showed that the word *adam*, which Grotefend regarded as a title, really means "I am," and he identified correctly the names of several countries in the geographical list which Grotefend had worked at.

In the same year (1836) in which Burnouf published his *Mémoire*, Christian Lassen (1800–1876) published his work *Die altpersischen Keilinschriften*, Bonn, 1836, which went over much of the ground covered by the illustrious Frenchman. Burnouf and Lassen were close friends,

and corresponded with and visited each other, and though it is quite clear that each wrote his book independently, yet, as Booth suggests (*op. cit.*, p. 223), when the two friends discussed their studies together, the one may have been more communicative than the other. Lassen remembered that Herodotus tells us (IV. 87) that Darius surveyed the Bosporus, and set up on its shores two pillars of white marble, whereon he inscribed the names of all the nations that formed his army, on the one pillar in Greek, on the other in Assyrian characters. Lassen thought it only natural that a list of this kind ought to be found among the inscriptions at Takht-i-Jamshîd; and he set to work to examine all the inscriptions published by Niebuhr and others. He thought that some of the names given on the pillars mentioned by Herodotus and found in the Zend-Avesta might suggest their pronunciation in the Persian inscriptions, which he hoped to be able to transliterate with the help of Grotefend's alphabet. He found the inscription suited to his purpose in that marked I by Niebuhr (Plate XXXI), with its mention of twenty-four proper names. When his study of it was ended, he drew up an alphabet containing twenty-three letters, to which he gave correct phonetic values, whereas Grotefend's only gave twelve or thirteen, and that of Burnouf sixteen. To him belongs the credit of the discovery of the true values of eight letters, viz., 𒀭 D, 𒁹 I, 𒆳 K, 𒁕 T, 𒍝 Z, 𒈠 M, 𒄩 G, 𒄑 G; and in respect of two others his values were nearly correct, 𒉿 W, 𒁕 T. And of the twenty-four proper names in inscription I he identified nineteen, a great triumph.

In the following year (1837) the progress of decipherment was carried a step further by E. E. F. Beer (1805–1841), who added two letters to the alphabet 𒅀 Y and 𒄭 H, and by Eugene Vincent Stanislas Jacquet (1811–1838),

N. L. Westergaard.

Rasmus Rask.

Christian Lassen.

who added Z, viz. 𐎶 V, 𐎼 C, 𐎹 TH, 𐎺 Y, 𐎻 R and 𐎽 H. Beer and Jacquet had discovered Y and H independently. Neither of these scholars was able to improve on the translations of Burnouf and Lassen, but their results, some of which were obtained independently, were of use to those whose knowledge of Zend enabled them to employ them in adding words to the Old Persian vocabulary.

IV.—RAWLINSON'S DECIPHERMENT OF THE PERSIAN INSCRIPTIONS

Rawlinson began to copy the two trilingual inscriptions on Mount Elvend and the trilingual inscription on the Rock of Bihistûn in 1835, when he was sent to Kirmânshâh to act as Adviser to the Governor of the Province. Some say that he had heard of Grotefend's alphabet and of his attempts to decipher the inscriptions of Takht-i-Jamshîd (Persepolis) and some names of the Achæmenian kings, and others say that he had not. But whether he had or had not matters little; it is certain that he had never seen Grotefend's alphabet, and that he had none of the books or papers that had been written on the subject. It is possible that he may have heard, if he heard anything at all about Grotefend, that the names of Hystaspes, Darius, and Xerxes had been identified by him; but it is far more probable that his own excellent classical knowledge made him guess that the inscriptions were more likely to be those of Darius and Xerxes than of any other of the Achæmenian kings. Having copied the two inscriptions on Elvend, Rawlinson compared them, and then saw that, with the exception of three groups of signs, they were identical. Using exactly the same reasoning as Grotefend, he guessed that these groups must be proper names; and when he applied to them the names of Hystaspes, Darius, and Xerxes,

he became certain that his guesses were correct. But these names only supplied him with thirteen characters, which he assumed to be alphabetic, viz., D, A, RA YA, WA, U, SH, KH, V, I, TA, AS and PA. (I give here the now generally accepted values of these characters; for it is unnecessary to repeat the incorrect values assigned to them by the early decipherers.) But Rawlinson remembered that Xerxes, in his speech to Artabanus, as recorded by Herodotus (VII. 11), gives his own genealogy, and says that he was the child of Darius, the son of Hystaspes, the son of Arsames, the son of Ariaramnes, the son of Teispes, the son of Cyrus, the son of Cambyses, the son of Teispes, the son of Achæmenes. It was quite clear to him that there were only three royal names in the Elvend inscriptions; but he thought it possible that the inscription on the Rock of Bihistûn might give more. And if this were the case, and he could identify the groups, the Greek forms of the names given by Herodotus would enable him to guess the values of the characters with which they were written. Burnouf and Lassen had the same idea when they attempted to read the twenty-four geographical names on Niebuhr's inscription I; but this Rawlinson did not know. He then attacked the opening lines of the Bihistûn Inscription, and identified the following groups :—

1.
2.
3.
4.
5.

In No. 1 group he knew the values of the first four signs, A.R.SH.A., and these obviously formed part of the name

called Arsames by the Greeks; therefore the last sign must = M, and he could write ARSAM. In No. 3 group he knew the values of all the signs except the last, A.R.I.Y.A.R.M., which clearly represent the Greek form Ariaramnes; therefore the last sign must = N. In group No. 5 he knew the values of all the signs P.A.R.SA.I.YA., which give the name of Persia. In group No. 2 he knew the values of all the signs except the first, KH.A.M.N.I.-SH.I.YA, which clearly represent "the Achæmenian" of the Greek Herodotus; the first sign, then, represented the vowel A, or perhaps an aspirate; but as he knew A already, 𐎠, he guessed that the sign 𐎧 must represent H. In group No. 4, again, he knew all the signs except the first, I.S.P.IS., which must represent the name called by the Greeks Teispes, a fact indicated by the P. Later he gave to the first sign 𐎫 the value of C or CH. Then, in going through the inscription and working out the proper names, he obtained the values of nearly all the other letters. Thus from Artavardiya he obtained 𐎭 D; from Athura (Assyria) 𐎺 TH; from Atrina 𐎮 TR; from Auramazda 𐎼 Z; from Bâbirush (Babylon) 𐎹 B and 𐎿 R; from Bagâbigna 𐎸 G; from Kabujiya (Cambyses) 𐏁 J; from Katpatuka (Cappadocia) 𐎲 K, 𐎯 T (before U); from Chorasmia 𐎻 M (before I); from Kurush (Cyrus) 𐎧 K; from Mudrâya (Egypt) 𐎶 M (before U); from Ufaâtu (Euphrates) 𐎵 F; from Haldita 𐎷 L; from Magush 𐎽 G (before U); from Fravartish 𐎵 F; from Uvaja 𐏀 J (before A); and so on.

Towards the end of 1836 Rawlinson had to go to Baghdâd for medical advice, and there Colonel Taylor put into his hands the alphabets of Grotefend and Saint Martin. After examining them, he found that they did not help him; for

he had discovered the values of more Persian signs than either of them. In his *Memoir* on the Bihistûn Inscription he describes them as "conflicting systems of interpretation." He determined to do his work in his own way; and he returned to Kirmânshâh and went on copying the great inscription, until he had copied about 200 lines. Little by little he enlarged his alphabet; and his guesses at the values of the letters were astonishingly accurate. He had not de Sacy's translations of the Pehlevi inscriptions to help him, as had Grotefend; but he possessed a wonderful faculty for divining the correct values of the signs, for restoring broken words, and for grasping intuitively the general meaning of a passage. The extreme length of the Bihistûn text helped him greatly; and as no one had worked at it before him, his mind was undisturbed by other people's views and opinions. During the whole of 1837 he worked at the Bihistûn text; and before the end of the year he felt that, without the help of any of the works on the Persian cuneiform inscriptions which European scholars had written, he had succeeded in making a translation of its first two paragraphs. He then drew up a paper containing text, translation, transliteration, notes, etc., and sent it to the Royal Asiatic Society in London, where it arrived early in 1838. The only official in the Society who was capable of passing any opinion on the merits of the paper was Edwin Norris (1795–1872), the Orientalist, who had recently been appointed Assistant Secretary. By his advice, a copy of the paper was sent to the Société Asiatique in Paris, so that Burnouf and his colleagues might discuss the translation. Silvestre de Sacy, whose opinion would have been invaluable, had unfortunately died on the 22nd of the February preceding. Burnouf and the other members of the Society esteemed the paper so highly that they elected Rawlinson an Honorary Member, and showed their opinion of their new

member's work by sending him copies of Burnouf's *Mémoire*, published in 1836, and his book on the Yaçna, published in 1833. It was on this paper, written in 1837, and on its supplement, written in 1839, that Rawlinson based his claim to be the discoverer of the Persian cuneiform alphabet, and to be the first to translate with approximate accuracy any substantial part of an inscription, and *not* on his "Memoir" in Vol. X. of the *Journal* of the Royal Asiatic Society, which was not published until 1846. Nearly one-half of the Persian alphabet had been made out correctly through the efforts of Münter, Grotefend, Rask, Burnouf, Saint Martin, Lassen, Beer and Jacquet, but with it alone Rawlinson could never have made his translation; only the values of the other half which he himself discovered unaided enabled him to do this.

In 1838 Rawlinson entered into correspondence with Lassen, but only to find that Lassen's most recent transliteration merely supplied values to signs which he already knew or had partially divined. From Burnouf's book on the Yaçna he admits that he learned a great deal; and as this showed him the great importance of Zend in interpreting the Bihistûn text, he began to learn that language and enough of Sanskrit to enable him to use it as an auxiliary in his work. By the beginning of 1839 he had deciphered and translated nearly all the 200 lines which he had copied of the Bihistûn text, and he says in his "Memoir" that in many cases Lassen had at that time understood neither the grammar nor the etymology of the texts which he tried to translate. That same year he sent a supplementary paper to the Royal Asiatic Society containing a summary of the greater part of the Bihistûn text. The translation which he made in 1839 is substantially the same as that published in his "Memoir" in 1846; and modern scholars have succeeded in modifying it in a few details only. There is no doubt

that before 1840 he had made himself the Father of the decipherment of Persian cuneiform.

V.—THE "MEMOIR" ON THE PERSIAN VERSION OF THE BIHISTÛN INSCRIPTION

When the Afghan War broke out in 1839, Rawlinson was recalled to India; and during the next three or four years his military duties afforded him neither time nor opportunity for continuing his study of the Bihistûn Inscription. It was not until 1844, when he became Consul-General in Baghdâd as well as Political Agent of the East India Company in Turkish Arabia, that he was able to return to the studies that henceforward became the main object of his life. Meanwhile Grotefend had been continuing his efforts to translate the inscriptions from Takht-i-Jamshîd; and Niels Ludwig Westergaard (1815–1878), the eminent Sanskrit scholar, had been sent to Persia in 1843 to copy the inscriptions and to collect archæological information. He had studied all the published texts, and he was the first copyist of the inscriptions at Takht-i-Jamshîd and Naḳsh-i-Rustam who understood what he was copying. He gave his copies of the Persian versions of the texts to Lassen, who in 1844 drew up a new alphabet, and together with him published a work on the Persian and Susian versions in 1845. Lassen's alphabet and translations were discussed by Adolf Holtzmann (1810–1870), an eminent Sanskrit scholar; and he corrected two of Lassen's phonetic values, and through his knowledge of Sanskrit improved Lassen's translations in many places. In 1845 the contents of all the Persepolitan inscriptions and the inscription of Cyrus from Murghâb were known to Lassen, Westergaard and Holtzmann; and Lassen's alphabet was all but complete and practically correct. Indeed, it is said that Rawlinson

admitted that he was indebted to it for the values of two of the letters in his own alphabet.

When Rawlinson arrived in Baghdâd in 1844, he read all that the above-mentioned scholars had written, and began to study Zend and Sanskrit under Parsî teachers. One of his first acts was to revisit Bihistûn, to complete the copying of the Persian and Susian Versions of the great inscription. He returned to Baghdâd with a new copy of the Persian text (414 lines), a complete copy of the Susian text (about 260 lines), copies of all the epigraphs, and a drawing of the great sculptured panel above the inscriptions made by that distinguished naval officer JOHN FELIX JONES (died 1878). The remainder of 1844 and the whole of 1845 Rawlinson spent in writing his "Memoir" for the Royal Asiatic Society. As he read the works of Lassen and others, he found that a great many of his own discoveries had been anticipated; and analogies from Zend and Sanskrit which were brought forward by Burnouf, Westergaard and Holtzmann were of great assistance to him. Whilst the writing of the "Memoir" was in progress, an Irish clergyman, EDWARD HINCKS (1792–1866), was studying the Persian inscriptions; and he communicated the results of his labours to Edwin Norris, Assistant Secretary of the Royal Asiatic Society. Norris forwarded abstracts of Hincks's papers to Baghdâd; and Rawlinson found that their author had not only arrived at results similar to those of Lassen and himself, but that Hincks's observations enabled him (Rawlinson) to clear up some of his difficulties. Hincks, like Rawlinson, was a born decipherer; and nearly all the papers that he afterwards published possess matter of permanent value. Thus in many of his own discoveries Rawlinson was again anticipated.

Early in 1846 Rawlinson sent the first part (*i.e.*, the translation) of his "Memoir" to the Royal Asiatic Society; and

Norris placed it in the hands of the printer. It was decided to print the cuneiform text with types, and the difficulty of cutting these delayed the publication of the work until the end of the year. Norris designed the cuneiform types, which were cut by Messrs. Harrison, and read the proofs, and, as it was impossible to communicate quickly wth Baghdâd, he made several alterations in the transliteration, and completed many broken words in the cuneiform text, which his own knowledge enabled him to do correctly. His intuition was so sure that he was able to ask Rawlinson if he had not omitted a line in Col. IV. of the Persian text; and when Rawlinson consulted his first copy, he found that he had done so. Whilst reading the proofs, Norris noted several passages in which the copy seemed to him to be defective, and sent a list of them to Rawlinson, with the suggestion that they should, if possible, be verified on the Rock itself. When Rawlinson visited Bihistûn in 1847 to copy the Babylonian Version, he re-examined these passages, and found that, with two exceptions, Norris's doubts were justified.

The "Memoir" was divided into four Parts, and the first three of these appeared in the tenth volume of the *Journal* of the Society. The First Part was published in 1846, and contained the complete text of the Persian Version, with a transliteration, two translations, one in Latin and the other in English, and two drawings of the sculpture on the Rock. The Second and Third Parts were published in 1847, and contained chapters on the cuneiform alphabet, and a revised transliteration and translation of the Persian texts, and corrected copies of all the texts published by Lassen. The Fourth Part, which did not appear until 1849, was devoted to the vocabulary and was intended to contain a discussion of philological questions; but, unfortunately, it was never finished. In this Part Rawlinson shows that

Winged Man-headed Bull Inscribed with a Text Recording the Conquests of Ashurnasirpal II, King of Assyria, 883–859 B.C.

Discovered by Layard in the North-west Palace at Nimrûd (Calah).

since his arrival in Baghdâd in 1844 he had made very considerable progress in the study of Zend, Sanskrit, Pehlevi, Turkish, Persian and Pali, Hebrew, Syriac, etc., and it is therefore difficult to understand why he left it unfinished. He may have been occupied too closely with the study of the Susian and Babylonian Versions between 1846 and 1849 to give much time to the Persian Version. But from many conversations which I had with him when I was sent to receive his instructions concerning my official missions to Mesopotamia, I gathered that the anticipation of some of his discoveries by European scholars, and their persistent claims to priority, and the acrimonious disputes of such men as Holtzmann, wearied and irritated him. Rawlinson was by nature, like Hincks, a decipherer; and his one aim in working at a text was to make it yield to him the information it contained. He never tried to acquire the faculty for dealing with the minutiæ of philological scholarship which was possessed by Lassen; and he never treated any text as material on which to exhibit grammatical gymnastics. This being so, he was content to let his reputation as a Persian cuneiform scholar rest on his decipherment of the first two paragraphs of the Bihistûn Inscription in 1837, and on his translation of the Persian Version published in 1846. He claimed that his translations contained "novelty and interest" ("Memoir," p. 18); and this claim sufficed him.

In two particulars, Rawlinson's services and work have been greatly under-valued, and scholars generally have ignored them. I refer to the translations of all the inscriptions which Lassen had translated in his work *Ueber die Keilinschriften*, published at Bonn in 1845, and to the physical difficulties which attended the copying of the trilingual inscription of Darius. In Chapter V of his "Memoir" Rawlinson gave new translations of these; and in them he showed that he possessed a knowledge of the Old

Persian language greater than that of any other living man. His intimate knowledge of the Bihistûn Inscription enabled him to correct many of Lassen's errors, to restore broken passages, and to suggest emendations of passages which the great modern masters of the language, Spiegel and Weissbach, have adopted. None but Rawlinson could have done that in 1847. And as for the copying of the inscriptions on the Rock, everyone who has read the foregoing pages (see pp. 34, 36) must admire Rawlinson's physical courage and athletic skill, and the efficient way in which he performed his self-appointed and hazardous task. Many times did he climb the rocks, which rise to a height of nearly two hundred feet at the foot of the Rock, and reach the ledge, in 1835–37; and even in 1844 and 1847, when he worked from cradles slung from stakes driven into the crevices of the Rock above the sculptured panel, the risks to his life or limbs were very considerable. M. Flandin, who was sent out with the French Mission to the Shâh in 1839 to copy the inscriptions in Persia, surveyed the Rock, and managed to climb up by the path made by Rawlinson to the ledge, but declared that it was impossible to do more, and abandoned the undertaking. And J. de Morgan, the Director of the *Délégation en Perse*, who proposed to publish a new edition of the texts of the Rock in the official publication of the French Government, was obliged to relinquish the idea when he came to work out the cost of the purchase and transport of the many tons of scaffolding, ropes, chains, etc., which he felt would be necessary for performing this work. He told me, after Messrs. King and Thompson of the British Museum had re-copied the texts on the Rock, that he was very glad they had relieved him of the necessity of doing that work. He was a professional engineer, and said that he could never have allowed any of his men to risk their lives and limbs by " emulating the exploits of Rawlinson."

VI.—THE SUSIAN VERSION OF THE INSCRIPTION OF DARIUS I

The works of Rawlinson and Westergaard published in 1845 and 1846 prove that both were working at the decipherment of the Susian Version simultaneously, but independently; for Rawlinson was ignorant of the existence of the joint publication of Lassen and Westergaard. The text on which Westergaard worked was the list of countries conquered by Darius, which was inscribed on his tomb at Naḳsh-i-Rustam, and was copied by Westergaard in 1843; and Rawlinson's material was the Bihistûn Inscription. Westergaard worked on the proper names, and was the first to transliterate a passage of a Susian inscription. He thought that the Susian characters were partly alphabetic and partly syllabic, and made a list of about eighty-five; but he failed to recognize the use of some signs as determinatives. He called the language "Median," though he admitted that it had close affinities with the Scythic. In his "Memoir" (p. 228), Rawlinson says that lines 92–98 of the second column of the Persian Version were in such a bad state of preservation that he was only able to translate them with the help of the Median (Susian) Version. A glance at the plate containing the text of the last paragraph is sufficient to show the damage that has been caused to the text by rain and wind. And it is clear that if Rawlinson was able to supply the meanings of the broken and missing words from the Susian Version, his knowledge of the Susian language must have been considerable. That such was the case is proved by the fact that he began a "Memoir" on the Median (Susian) Version, and nearly finished it. But whilst he was revising his decisions, the work of Westergaard and papers by Hincks read before the Royal Irish Academy reached him, from which he saw that, as was the case in the

Persian Version, many of his discoveries had also been made by these scholars. Therefore without more ado he sent his copy of the text, with his readings and notes, to Norris, who, with his help in places, published his work on the Susian Version in Vol. XV. (1855) of the *Journal* of the Royal Asiatic Society. It contains the complete Susian text with a transliteration and translation, and statements about the language and its affinities which are of great value to this day. In fact, his translation has received only trifling alterations from modern scholars. The values assigned to the Susian characters by him, and his conclusions, have been discussed by many scholars, *e.g.*, de Saulcy, Mordtmann, Menant, Lenormant and Sayce. But the two modern scholars who have done most to establish the Susian language, and to provide an accurate syllabary, are Oppert and Weissbach, the former by his *Le Peuple des Mèdes*, Paris, 1879, and the latter by his *Altpersische Keilinschriften*, Leipzig, 1893, and his *Achämenideninschriften zweiter Art*, Leipzig, 1896.

VII.—EARLY TRAVELLERS IN BABYLONIA AND ASSYRIA

One of the first European travellers to visit Mesopotamia was Benjamin of Tudela, a Jewish Rabbi and a native of Navarre, who passed through Assyria and Babylonia about 1173, and went on to Persia, and eventually made his way to the boundaries of China. His journeyings lasted for thirteen years, and he seems to have travelled solely with the view of acquiring information. He visited the ruins of Nineveh and Babylon, and accepted the tradition which was current in his day, that Birs-i-Nimrûd, which is a part of the ruins of the great temple of Nabû at Borsippa, was the Tower of Babel. The temple of Bêl at Babylon, the *zikkurat* of which was the true Tower of Babel, was in ruins when Alexander the Great arrived in Babylon (see Arrian,

Anabasis, VII. 17). He gave orders to rebuild it, and had all the débris removed and the site cleared, a fact which Koldewey's excavations have proved; but he died before he could begin the work. An interesting inscription in the British Museum (see *Cuneiform Texts*, Pt. IV, plate 39, tablet 88–5–12, 619) published by Pinches, contains the record of a money contribution to the clearing of the great Temple of Babylon E. SAG. ILA, in place of a slave's labour. The tablet is dated in the sixth year of Alexander, the son of Alexander the Great, and not of Alexander the Great, as Oppert erroneously supposed. See Sidney Smith, *Babylonian Historical Texts*, p. 130 (note). There seems to be no doubt that E. SAG. ILA, the great Temple of Bêl in Babylon, was in ruins in Alexander's day; but we have no knowledge about the state of the *zikkurat*, or temple-tower, that was attached to it. We may assume that the upper part of it was wrecked by Xerxes; and it is possible that all the stairways leading to its stages were destroyed, though the massive lower stages can hardly have disappeared. But during the fifteen centuries that elapsed between the reign of Alexander the Great and the visit of Benjamin of Tudela, the natives had probably carried off the bricks for building purposes, and the dust to use as top dressing on their fields; and there was nothing that resembled a tower for Benjamin to see.

On the other hand, there was much more of the *zikkurat* of the Temple of Nabû at Borsippa to see than there is now; and Benjamin and later travellers may be pardoned for calling the Birs-i-Nimrûd the Tower of Babel. Therefore it is unlikely that any traveller to Babylon after the death of Alexander can have seen the Tower of Babel. Beatus Odoricus, a friar who visited Babylon in the fourteenth century, also called Birs-i-Nimrûd the Tower of Babel. John de Burdens, or Sir John de Mandeville

(1322), says that the "Tour of Babiloyne was built by Nembrothe (Nimrod)," but there is no evidence that he saw it. Many travellers, both English and Italian, made their way into Persia and India via Mesopotamia during the fifteenth century; but as most of them were either merchants or agents for commercial houses, their interest was not centred in antiquities. In the second half of the sixteenth century the principal travellers were "Master" Cesar Frederick (1563), the correct form of whose name is Cesare Federigo (see the Hakluyt Society's Vol. V. p. 365); Gasparo Balbi, a Venetian jeweller (1579); John Newberrie (1581); John Eldred, Ralph Fitch (1550–1611), W. Leedes, a jeweller, and John Story, a painter, all of whom embarked on a ship called the "Tiger" for the East in 1583; and Dr. Rauwolf (died 1596). John Eldred says that when he was coming down the Tigris from Môṣul, he saw on the right bank of the river the Tower of Babel; but the mass of brickwork which he saw was the ruin of the *zikkurat*, or temple-tower, which was built by one of the Kassite kings in the city of Dûr Kurigalzu, and is called today ʿAḳâr-Ḳûf (see Ibn al-Athîr, Vol. IV. p. 328). Rauwolf, it seems, examined the ruins of Babylon with great care; but his description of what he saw is somewhat vague. He speaks of the ruins of the "Tower of Babylon," which he says are half a league in diameter, and the holes in it mentioned by him are probably the "series of rhomboidal holes" which Rawlinson saw in the Birs-i-Nimrûd, and thought were made for ventilation or drainage. Rauwolf's descriptions of what he saw do not help the archæologist; and some recent critics doubt if he ever saw Babylon at all. Far more valuable are the remarks of Pietro della Valle, who visited Babylon in 1620. He was a good antiquary and scholar, and possessed sufficient knowledge of the histories of classical writers and of the Bible to form accurate

Colossal Lion Inscribed with a Record of the Principal Conquests of Ashurnasirpal II, King of Assyria, 883–859 B.C.

Discovered by Layard in the Temple of Enurta at Nimrûd (Calah).

ideas about what he saw. A careful perusal of his work suggests that he devoted his whole attention to the mound of Bâbil and to the ruins of the Ḳaṣr, or Palace, the tower or pyramid of which he thought might be the Tomb of Belus mentioned by Strabo. He makes no mention of the Tower of Nimrod; and it is therefore very doubtful if he visited Birs-i-Nimrûd. The collection of bricks, baked and unbaked, which he made to send to his friends in Italy, has already been mentioned.

In the second quarter of the seventeenth century the ruins of Babylon were visited and carefully examined by the learned Roman Catholic missionary Père Emanuel de Saint Albert. He approached Ḥillah from the north; and before arriving there, he saw a hill, formed of masses of ruins of buildings, the circumference of which he estimated at two or three miles. This hill was probably the great mound of Bâbil, which from the north is visible from afar. From it he took away some square bricks on which characters in some unknown writing were stamped. He crossed the Euphrates and went on to Ḥillah, and then set out to examine another hill which lay about one hour distant and was, he says, in Arabia. There he found a number of square bricks stamped with the same inscriptions as those which he took from Bâbil. On the top of the hill he saw a fragment of a thick wall, which seen from a distance looked like a tower. Another mass of brickwork lay near it, and he notes that the cement used in it was so hard that it was impossible to extract a single brick whole. He thought that both masses of brickwork had been vitrified. Here he is clearly referring to Birs-i-Nimrûd. Some of the natives told him that the masses of brickwork were the remains of Babylon, *i.e.*, of the Tower of Babel; but he did not believe them, and preferred to think that the first hill, *i.e.*, the mound of Bâbil, marked the site of Babylon. The natives told

him many silly legends about both hills; and among them was one which asserted that Birs-i-Nimrûd was the Prison-house of Nebuchadnezzar.

Another learned Italian, F. Vincenzo Maria, who travelled from Môṣul to Baghdâd and from Al-Baṣrah to Ḥillah in the second half of the seventeenth century, rejected the belief that ʿAḳâr-Ḳûf represented the Tower of Babel, because it stood near the Tigris, and not on the Euphrates, as the Scriptures say. On the other hand he believed that Birs-i-Nimrûd was the ruins of the Tower of Babel. Between 1760 and 1767 Karsten Niebuhr (1733–1815) travelled all over Western Asia, and visited the ruins of Babylon. He thought that many of the great buildings and the walls that surrounded the Citadel had disappeared through the agency of the natives, who had carried away the bricks to build their houses, bridges, etc. This view was, no doubt, suggested by the sight of the men whom he saw digging bricks out of the foundations of the buildings which they had demolished. He rightly believed that the remains of the Citadel and Hanging Gardens lay on the right bank of the Euphrates, and thought that Birs-i-Nimrûd originally formed part of the city of Babylon, and that it represented the ruins of the great Temple of Bêl (*Reisebeschreibung*, Vol. II. p. 288). He visited Môṣul, but has nothing to say about the ruins of Nineveh on the east bank of the Tigris; for he rode over the long low lines of mounds under which lie the ruins of the ancient city without knowing that he had ridden over Nineveh, until it was pointed out to him. Even the name of Ḳalaʿat Nûnyâ, or "Castle of Nineveh," which he saw, conveyed nothing to his mind. It is interesting to note that the village of "Koindsjug," *i.e.*, Ḳuyûnjiḳ, was in existence in his time.

The first European to explore the ruins of Babylon was M. l'Abbé J. Beauchamps, Vicaire-général de Babylone.

He travelled in Babylonia between 1781 and 1785. With the help of the natives who were digging out bricks for building purposes from the massive foundation-walls of Babylon, he found the famous stone lion, which is still preserved on the site, and made his way into the chamber which Koldewey believed had once contained the machinery which supplied with water the imaginary "Hanging Gardens" of Babylon. The arguments for and against the existence of "Hanging Gardens" at Babylon are summarized in my *Nile and Tigris*, London, 1920, Vol. II. p. 297. Beauchamps recognized that the characters stamped on the bricks, and on the baked clay cylinders about three inches thick, and on the black stones which had been found there, were writing; and he sent some of the bricks to his friend, the Abbé Barthélemy, in Paris (see above, p. 26). Thus before the close of the eighteenth century there were Babylonian bricks in Rome, sent by Pietro della Valle; in Amsterdam, sent by Kämpfer; and in Paris, sent by Beauchamps. What became of the bricks collected by Emanuel de Saint Albert at Bâbil and Birs-i-Nimrûd is not known to me. The Hon^ble. East India Company ordered their Resident at Baṣrah to send home a dozen specimens of the inscribed bricks from Babylon for their Museum; and these arrived in London in 1801 (Booth, *op. cit.*, p. 163). The ruins of Babylon, which in the Middle Ages must have been very considerable, were further spoiled by the natives, who dug in them for bricks. The famous French zoologist G. Antoine Olivier (1756–1814), when visiting Babylon, said it was hopeless to try to distinguish which were the actual ruins of the great city; for the whole district had been dug through by the natives, who had covered the country for miles with heaps of *débris*. And he pointed out that Ḥillah, Kifl, Kûfah, Masjid ʿAlî, Masjid Ḥusên and many other towns have been built with bricks from Babylon.

When Claudius J. Rich arrived in Baghdâd as Resident of the Hon^ble. East India Company, he learned about the work which Beauchamps had done at Babylon; and in 1811 he paid his first visit to the ruins. At Jumjumah he purchased a basalt boundary-stone, now in the British Museum, and then passed on to examine the ruins. He set small parties of men to dig in various parts of the ruins, especially in the Ḳaṣr, or "Fortress"; but his excavations were on a small scale, and he found nothing of special interest. He next went to Birs-i-Nimrûd, and examined and measured the portion of a brick wall which stands on the top of it and, as we have seen, was commonly known as the "Tower of Babel"; he found that it was 37 feet in height and 28 feet in width. He noticed the vitrification of the brickwork, and assumed that it was due to the action of fire; and he remarks on the apertures in it, which go right through the ruin. He gives the circumference of the whole mound as 762 yards, and its height from ground level to the top of the wall as 235 feet. He attributes the preservation of the wall to its distance from the river, which makes the carrying away of the bricks a serious undertaking. Finally he decided that the wall was not a part of the Tower of Babel, which he was convinced was on the other side of the Euphrates; but later his views on the subject were not so definite. They are set out at length in his "Memoir on the Ruins of Babylon," which was printed, at Von Hammer's request, in the *Fundgruben des Orients*. His later doubts were based on the approximate similarity of the circumference of Birs-i-Nimrûd (2286 feet) to that of the Muḳêlibah, *i.e.*, the hill of the Ḳaṣr, or "Fortress." But of course Rich did not know that the ruins of the great Temple of E.Sag. Ila (and probably also the *débris* round the Tower of Babel) were cleared away by the orders of Alexander the Great, who intended to build a new temple to Bêl.

Whilst Rich was Resident at Baghdâd, Sir Robert Ker Porter and James Silk Buckingham visited Babylon under his auspices, and discussed his conclusions, measurements of the ruins, etc. Porter thought that the wall on the Birs-i-Nimrûd was a part of the Tower of Babel. Both were classical scholars, and tried to make the ruins fit the measurements given by Herodotus, Diodorus, Strabo and others; but their results were barren, though their discussions show that they were men of considerable learning. After 1811 Rich made no further excavations at Babylon or anywhere in the neighbourhood, but transferred his activities to Assyria and Persia, as has been already said (see above, pp. 27, 29). It is much to be regretted that he did not make any attempt to excavate the mound of Al-Uḥêmar, *i.e.* "The Little Red Hill," which lies about eight miles to the east of Bâbil. Porter found it to be 60 feet high and surmounted by a rectangular building made of burnt bricks, and oriented to the cardinal points. We now know that the mound marks the site of the ancient city of Kish; and the excavations made there in 1924 by Professor Langdon at the expense of Mr. Weld Blundell, and those of Genouillac made twelve years earlier,[1] show what splendid results awaited the spade of the excavator. No further excavations were made at Babylon until 1851, when Mr. (later Sir) A. H. Layard began to work on the mound of Bâbil.

Mention must now be made of the excavations by the French and English in Assyria. Owing to ill-health at Baghdâd, Mr. C. J. Rich, Political Resident, was obliged to make a tour through Kurdistân; and he found it convenient to return via Môṣul, a town which stands on the right, or west, bank of the Tigris, exactly opposite the mounds of Ḳuyûnjiḳ and Nabi Yûnis,

[1] See Genouillac, *Premières Recherches archéologiques à Kich*, tom. I, Paris, 1924.

which mark the site of the City of Nineveh. He paid several visits to the latter mound, and learned from the natives that large sculptured slabs had been found in it by them when digging foundations for houses. The figures of men and animals on the slabs had been held by the natives to be "devils"; and so, as good Muslims, they first destroyed the effigies, and then, as practical men of business, burned the slabs into lime for building purposes. In the houses at Nabi Yûnis Rich saw many inscribed stones, bricks, etc.; and one of the natives took him down into his *sardâb*, or underground chamber, in which, on account of its coolness, the family passed the summer, and showed him passages lined with stone slabs, and various openings. These ran under the so-called Tomb of Jonah; and they were so large that Rich felt certain that they formed parts of the substructure of a very large and very ancient building. From the native who showed him the massive brick walls and slabs he acquired a baked clay barrel-shaped hollow cylinder of Sennacherib (B.C. 705–681), which we now know must have come from the foundations of a temple or palace of that king. Thus before Rich went to Môṣul, the natives of Nabi Yûnis had discovered Nineveh. At Ḳuyûnjiḳ he made a few "trial" excavations, and obtained fragments of pottery, bricks and cuneiform tablets; and these results confirmed him in his view that the mounds contained the ruins of very large royal buildings. The shape and substance of the cylinder of Sennacherib showed him that it belonged to the same class of antiquities as the cylinders of Nebuchadnezzar II. which he obtained at Ḥillah, and he could hardly fail to attribute it to the same period of antiquity. And, though it was the fashion at one time to say that Rich did not suspect the existence of palaces of Assyrian kings under the mounds facing Môṣul, the remarks which he makes about his collection of antiquities show clearly that he

realized their general importance. No man with Rich's antiquarian knowledge, after four visits to Môṣul, could fail to do so. He never doubted, as did Botta and Layard, that the ruins of Nineveh lay under Nabi Yûnis and Ḳuyûnjiḳ.

The excavations which were made in these mounds were the direct result of the publication of Rich's Journals and copies of inscriptions which his widow issued in 1839. These were read and studied by M. Julius Mohl (1806–1876), the famous French Orientalist, who came to the conclusion that Rich had found the site of Nineveh, and that rich archæological treasure lay buried there. As the result of his influence and activity, the French Government appointed a Vice-Consul to Môṣul, and instructions were given him to make collections of manuscripts and antiquities for his country. The man chosen was Paolo Emilio Botta (born at Turin 1802, died 1870), who arrived in Môṣul in 1842. By the advice of the natives he applied for leave to excavate Nabi Yûnis; but the Pâshâ objected, and he therefore turned his attention to Ḳuyûnjiḳ, where he dug for about six weeks (Dec. 1842–Feb. 1843) and found nothing. Natives having reported to him that there were sculptured slabs at Khorsabad, about 10 miles from Môṣul, there Botta went in March 1843; and in a few weeks' work he uncovered the ruins of the magnificent palace of Sargon II., King of Assyria (B.C. 721–705), and found hundreds of yards of sculptured slabs, colossal winged man-headed bulls, etc. Botta thought that he had discovered Nineveh; and in his first letter to M. Mohl, dated 5th April, 1843, he wrote, "Ninive était retrouvée." In the early stages of his work, his funds were provided by his personal friends; but when the importance of his discovery was realized in France, the Government made an adequate grant, and he was enabled to finish the excavations at Khorsabad satisfactorily. In

May 1843 Botta abandoned Ḳuyûnjiḳ and devoted all his energies to Khorsabad, where he continued work until 1845. In that year he returned to France with the magnificent collection of sculptures that are now in the Louvre.

Whilst Botta was excavating at Khorsabad, Layard, who had gone to Constantinople in 1842 and had been kept informed of the progress of Botta's work, urged Stratford Canning, the British Ambassador to the Porte, to let him undertake excavations at Nimrûd. He was familiar with Rich's description of the great mounds there, and had himself gone over them carefully with his friend Mr. Mitford in 1840, and had visited them again in 1842. Stratford Canning hesitated for some time; but when he received the *Report* which the Rev. G. P. Badger (1815–1888; see his *Nestorians and their Rituals*, Vol. I, p. 87 ff.) made of his survey of the mounds, he decided to obtain a *faramân*, or "permit," from the Porte, and to name Layard as his agent for carrying out the work at Nimrûd. Rich thought that Nimrûd marked the site of the town of Larissa mentioned by Xenophon (*Anabasis* iii, 4, § 7), and Layard thought the ruins there were those of Nineveh; but we know now that they stand on the site of the city of Calah mentioned in the Bible (Gen. x. 11). Stratford Canning did nothing by halves, and he agreed to provide out of his own pocket the funds necessary for giving the work a fair trial, just as Botta's friends in Paris had done for him. It is morally certain that, but for the promptitude of Stratford Canning and his public-spirited behaviour on this occasion, the splendid collection of Ashurnaṣirpal's sculptures which adorn the British Museum would now be filling a gallery in the Louvre. Layard had been shrewd enough to make an arrangement with Botta in 1843, when he abandoned Ḳuyûnjiḳ, whereby he could carry on the work there for Stratford Canning. It was well that Layard had done

The "Black Obelisk."
Discovered by Layard at Nimrûd (Calah).

so; for when he returned to Môṣul in 1845, he found that Botta's successor as Vice-Consul claimed the site as French property, and was actually excavating there. When Layard was in Constantinople early in 1845 he persuaded Stratford Canning to legalize the excavations which he had already made for him at Ḳuyûnjiḳ by including Ḳuyûnjiḳ in his demand to the Porte for a *faramân*. But for this timely thought, Ashurbanipal's sculptures and the thousands of inscribed tablets from the Royal Library and the Temple Library would now be in Paris instead of in the British Museum.

With a *faramân* empowering him to dig anywhere and everywhere in the Pâshâlik of Môṣul, Layard left Constantinople in the middle of October 1845, went by steamer to Samsûn on the Black Sea, and rode to Môṣul in twelve days, a very fine feat of horsemanship. His riding and powers of physical endurance were well known and greatly admired by the natives throughout the East; and forty years after his departure from Assyria, the greybeards of Sinjâr remembered him as the "Frangi who understood the language of the horses." He was often sent on missions by Stratford Canning in which speed and secrecy were indispensable; and the story of his ride from Constantinople to Broussa and back in an almost incredibly short time was told in the coffee-shops and khâns for a generation or two.

When Layard reached Môṣul, he found that Botta's successor had begun to dig at Ḳuyûnjiḳ; and he at once started work on the same mound. The French Vice-Consul protested, and was strongly supported by the Turkish Governor, Kiritli Oglu, who was credited with having a brutal, tyrannical and avaricious disposition. He had only one eye and one ear; and his personal appearance and conduct made him exceedingly unpopular. Brushing aside all opposition, Layard began to dig at Ḳuyûnjiḳ, working in one

part of the mound while the French Vice-Consul worked in another. Neither found anything of importance; and after a few weeks both excavators abandoned their digging. The Vice-Consul felt sure that there was nothing in the mound worth digging for; and Layard was anxious to get to work at Nimrûd, which lay about 20 miles downstream of Môṣul, and was, he firmly believed, the site of Nineveh. Towards the end of November Layard arrived at Nimrûd, and started work with only a few men. He seems to have been guided to the chambers which he first cleared out by natives, who told him that they had been opened some thirty years earlier by the custodians of the tomb of Sulṭân ʿAbd-Allâh, who wished to obtain stone to repair the tomb. These men had loosened some of the sculptured slabs, but found them too heavy to remove. By the beginning of December Layard had found a number of sculptured slabs, and winged, man-headed "bulls," and many small objects. He wrote to Stratford Canning and reported progress, and asked him for a supplementary *faramân*, which would put a stop to the mischievous obstruction of the Ḳâdi and Mufti and others. He further described the magnitude of the work to be done and, of course, asked for more money. The *faramân* arrived in due course, and then Layard proceeded to lay open the whole site, rejoicing in the fact that the document "secured to the British nation the records of Nineveh [*sic*], and a collection of the earliest monuments of Assyrian art."

On his return to Môṣul in January 1846, he found that Kiritli Oglu had been superseded, and that the town was being governed (with justice) by an officer called Ismaʿîl Pâshâ, until the arrival of Hâfiz Pâshâ. Layard at once reopened the excavations in Ḳuyûnjiḳ; and whilst these were in progress, he tested the powers of his new *faramân* by opening up the mounds at Baʿashîḳâ, Baʿazânî, Karamlîs,

The Town of Mosul and its Bridge of Boats as seen from the East Bank of the Tigris in 1844.

Ḳârâ Kôsh, Yâra and Jarrîah, and found unimportant Assyrian remains in most of them. In the spring of 1846 he received a letter from Stratford Canning, saying that he had presented to the British nation all the sculptures that had been excavated at his expense, and that in future the British Museum would supply funds for the work at Nimrûd up to a certain sum. But alas! the sum named was a very small one, and but for the assistance rendered by his friends Layard could never have done what he did at Nimrûd. The French Government voted for the excavations at Khorsabad a sum exceeding the total grant of the Treasury to the British Museum, and sent one of the ships of the French Navy to Baṣrah to bring the sculptures to Europe. And when these were deposited in Paris, the Government undertook the publication of them without counting the cost. On the other hand, the Nimrûd excavations were starved for want of money; and when the sculptures reached Baṣrah, they lay there for months waiting for "tramp" ships to take them to Bombay. There they were dumped on the Bandar, and many of the cases were opened or unpacked, and their contents left lying about for weeks, and in some instances for months. Thefts by the people were numerous; and we shall never know now exactly what was found at Nimrûd. And but for the generous grant made for the purpose by the Hon^ble. East India Company, and the subscriptions of friends, the Nimrûd sculptures could never have been published; the Treasury refused to give a grant for the purpose, and the British Museum could do nothing, for it had no money.

During 1846 and a part of 1847, Layard continued his excavations at Ḳuyûnjiḳ; but his absences at Nimrûd were so frequent that the work of superintending them was undertaken by Mr. Ross, to whom we owe our earliest good general account of Sennacherib's sculptures at Bavian.

The value of his services and discoveries is acknowledged by Layard in *Nineveh and its Remains*, Vol. II, p. 138 ff. In 1847 Layard returned to England, and Mr. Ross left Môṣul, and, with the consent of the Trustees of the British Museum, the excavations were handed over to the care of Mr. Christian Rassam, the British Vice-Consul, who married Matilda, the sister of the Rev. G. P. Badger. During the period of Layard's absence in England, Mr. Rassam was assisted by his brother, Mr. Hormuzd Rassam (1826–1910), who had acted as unpaid Wakîl, or Deputy, to Layard at Nimrûd. Layard returned to Môṣul in 1849, and devoted all his energies to the excavations at Ḳuyûnjiḳ, where work was carried on steadily until 1851, when he finally left Assyria. During the years 1849–1851, Layard and Rassam cleared out at Ḳuyûnjiḳ seventy-one chambers, and laid bare a series of bas-reliefs of a total length of 9880 feet, and twenty-seven gateways adorned with colossal winged "bulls" and lion-sphinxes (*Nineveh and Babylon*, p. 589).

Whilst work was going on at Ḳuyûnjiḳ under the direction of Rassam, Layard was riding about the country seeking for ruins containing large bas-reliefs, bulls, etc. He examined the mass of ruins at Al-Hathr in the heart of the Western Desert, and in 1850 went down to Babylon to see what was to be found there. He excavated a part of the north end of the mound of Bâbil and discovered many coffins and remains of the Parthian period, and eventually came to solid piers and walls; but they were not covered with reliefs. He then went to the Ḳaṣr and cleared out a part of the subterranean passage, which the natives had shown to Beauchamps in 1782 and to Rich in 1811, but found nothing that he considered to be worth removing. He next went to the mound of ʿAmrân ibn ʿAlî, and found fragments of glass of the Greek period, and terra-cotta divining bowls inscribed with magical texts in Hebrew, Syriac, Mandaïtic, etc.

His "finds" disappointed him, and he came to the conclusion that the heaps of earth and rubbish which lay about the place were not worth excavating. He next visited Al-Uḥêmar (Kish), but made no excavations there, though the solid square structure with its terraces, or platforms, ought to have suggested the possibility of making important discoveries in the mound.

VIII.—RAWLINSON AND THE BABYLONIAN VERSION OF THE INSCRIPTION OF DARIUS ON THE ROCK OF BIHISTÛN

In 1847, as already said, Rawlinson paid another visit to the Rock of Bihistûn to re-collate several passages of the Persian Version, and to copy the Babylonian Version. On his return to Baghdâd he set to work on the decipherment of the Babylonian text, and made an intensive study of it for about a year and a half. He found it necessary to resume his studies of Hebrew and Syriac, which languages were, as he realized more and more as his work went on, of the first importance as helps to translation. By the end of the summer of 1849 he felt that he had made out the general meaning of the inscription; and he returned to England in order to lay his work before the Royal Asiatic Society. In January and February 1850 he read an introduction to his work on the Babylonian text before the Society, in which he discussed the Inscriptions of Assyria and Babylonia. In this he said that he had identified about eighty proper names, and fixed the values of about 150 characters, and had succeeded, through the Persian text, in compiling about 500 Babylonian words of which he knew the meaning certainly and the phonetic values approximately. But he gave no list of characters. He made valuable remarks on the polyphonic character of the languages, and was the first to discuss this important matter. But on examining the papers on the Babylonian and Assyrian Syllabary which

Hincks published between 1846 and 1850, it is quite easy to see that he had more accurate knowledge of the use and values of the characters and their nature than Rawlinson. Hincks was the first to publish a list of characters, the greater number of the values of which were correct; and he identified the signs for the vowels, and proved that many signs were syllabic. He noticed the care used in distinguishing the various gutturals, labials and sibilants, he pointed out the existence of ideographs and determinatives, he read the name and titles of Nebuchadnezzar, and determined the meanings of the signs that are used for "king," "god," "son," "great," "earth," "man," etc. In fact the first step in the correct decipherment of the Babylonian text was made by Hincks. Moreover, he made the deduction that the Babylonians and Assyrians had borrowed their writing from a non-Semitic people, and that originally the phonetic values of the ideograms corresponded in some way with the first sounds of the words they represented. But in translating the Semitic inscriptions, Rawlinson was as superior to Hincks, and in the same way, as he had been to Lassen in translating the Persian inscriptions. This he clearly proved by his translations of several passages from the Black Obelisk, and his running commentary on them. Rawlinson's work on the Babylonian text, with a Syllabary, and the complete translation and the transliteration, was laid before the Royal Asiatic Society in the winter of 1850–1851, and the greater part of it was printed before the following May. The complete work, which forms Vol. XIV. of the *Journal* of the Society, did not appear until January 1852. Having seen the greater part of the volume in type, Rawlinson committed the completion of the volume to the care of Norris, and returned to Baghdâd in the autumn of 1851.

Some writers on the decipherment of the Babylonian

Version of the Bihistûn Inscription have put forward the view that the world is indebted for it to the labours of Grotefend; but such is not the case. Grotefend, by deciphering the names of Darius, Xerxes and Hystaspes, did make out the true values of about eight characters; and some of his guesses about the values of another eight were partly correct. But he denied that the Babylonian language was Semitic; and he thought that Persian, Susian and Babylonian were cognate languages. And he translated the ordinary brick inscription of Nebuchadnezzar as a prayer to the god Mithras. These facts are sufficient to show that he was incapable either of transliterating or translating the Babylonian text at Bihistûn.

Menant and, following him, several other French scholars have claimed that Rawlinson owed to DE SAULCY many of the values which he gave in his Syllabary, and that he only obtained his successful results by adopting de Saulcy's system and translations. What exactly de Saulcy wrote on the Vân inscriptions cannot be stated; for his early contributions on cuneiform matters were contained in private letters to Burnouf (Booth, *op. cit.*, p. 399). From his published work it is clear that he did not know that the Babylonian signs were syllabic in character; and he thought that some of them consisted of two parts, one part giving the consonant and the other the vowel. According to Menant, de Saulcy gave correct values to about 120 signs in 1849; and when he saw in Rawlinson's Syllabary, published about a year later, sixty-eight signs with the same value as his own, he asserted that Rawlinson had borrowed them from him. But Hincks had done all this work two years earlier; and we know that his papers were read in France to Mohl and other scholars a year before de Saulcy published his two papers. And Rawlinson's transliteration and translation of the Babylonian Bihistûn text were

finished before he left Baghdâd in the autumn of 1849; and he was actually travelling to England when de Saulcy's papers appeared. In any case, de Saulcy's alphabetic method was wrong; and it was only when Rawlinson, following Hincks, adopted a syllabic system that the inscription was correctly deciphered. Rawlinson always kept his lists of signs by him, and made alterations in the values he had given to them whenever his increasing knowledge of the texts justified it. It is impossible to think that there were sixty-eight signs of which he did not know the values; and it is certain that if either de Saulcy or Rawlinson borrowed values from the other's works, it was not Rawlinson. One of the points overlooked by de Saulcy's friends was that Hincks published papers showing that in 1847 he had arrived at the values which de Saulcy claimed to be his in 1849! But it has also been claimed by de Saulcy's friends that Rawlinson was indebted to him for help in making his translations of the Achæmenian and Assyrian inscriptions. This claim, too, is absurd, for the texts of the Bihistûn inscriptions were available to no one until Rawlinson published them. There were many Assyrian texts available to both scholars; for the Khorsabad inscriptions were published by Botta in 1848, and the text on the Black Obelisk by Layard in his *Monuments of Nineveh* in 1849, and there is no doubt that both scholars worked at them independently. Down to 1854 de Saulcy persisted in his erroneous views, and even in that year asserted that Rawlinson's method of reading was essentially wrong, and that the credit for such parts of it as were correct should be shared with him. In short, it is safe to say with Booth (*op. cit.*, p. 405) that on all points of difference between Rawlinson and de Saulcy, both as regards the theory of the language and the details of its expression, Rawlinson was right and de Saulcy was hopelessly wrong.

Tomb of the Prophet Daniel and the Ruins at Shûsh (Shushan the Palace) in 1851.

We have now to consider briefly to what extent Rawlinson was helped by Hincks in his translation and transliteration of the Babylonian text at Bihistûn. We know from the papers that were in the possession of the late Mr. W. S. W. Vaux of the British Museum that Rawlinson made very full lists of the signs that are found in the Persian, Susian and Babylonian Versions of the great inscription of Darius; and the papers themselves showed that he altered from time to time the values that he gave them. But we do not know the dates when these alterations were made; and still less do we know the immediate causes of his alterations. The greater number were undoubtedly due to his progress in his knowledge of the various languages, which, when he had finished his translations, was greater than that of any other scholar. But among the papers in Mr. Vaux's possession there were several notes and summaries of passages in Hincks's papers, which show that Norris kept Rawlinson informed of the extraordinary success of Hincks's labours; and it is very possible that these contained hints that Rawlinson found illuminating and developed in his own wonderful fashion. Norris himself raised many queries in his letters to Rawlinson; and these caused him to revise some of his conclusions and phonetic values. Rawlinson was not a profound Oriental philologist in the true sense of the word, and he accepted Norris's remarks and criticisms with gratitude, in the same way as he received the information that he derived from Burnouf's invaluable treatise on the Yaçna. The value of Norris's help to Rawlinson between 1838 and 1850 has never been adequately recognized or appreciated. Though possessing great Oriental attainments, Norris was singularly modest; and he was as diffident about the value of his work as was Rawlinson about his transliterations and translations. Students in England and

on the Continent were far too busy in asserting their claims to "priority" to trouble about Norris's contributions to science; and his name is rarely mentioned by the writers on cuneiform decipherment, who endeavour to magnify the efforts of Rask, Lassen, Westergaard, de Saulcy and Oppert at the expense of Rawlinson. Time after time Rawlinson's friends asked him to make a definite statement about the way in which he obtained the values in his Syllabary; and his answer to them was always the same, "I have no idea how I arrived at them." But he openly said on more than one occasion that in 1850 Hincks knew more about the languages used in the Bihistûn inscription than anyone else. In his Syllabary, published in 1850, Hincks says that he borrowed 77 values from Rawlinson, and that of the remaining 267 signs, he and Rawlinson only disagreed about the values of 49, the points of disagreement being, not the consonantal values of the signs, but only of the vowels inherent in them. Hincks ascertained the value of about 200 signs independently; but an examination of Rawlinson's Syllabary, published in his "Memoir" of 1851, shows that he can only have borrowed a few values, if any, from Hincks. The value of Hincks's work on the Syllabary was very great; and if we assume that his merits as a decipherer are equal to those of Rawlinson, it in no way detracts from the value of Rawlinson's independent decipherment, or robs Rawlinson of his priority; for unless Rawlinson had made for himself very full lists of signs with correct values, he could never have made his translations. And, as regards these translations, it is quite obvious that no one could enter into competition with him when he made them. The only competitor possible was Hincks; and he never published all the translations he made or disputed the accuracy of those made by Rawlinson. His longest translation was that of the inscription of Tiglath

Pileser; and this was only made after the decipherment of the cuneiform inscriptions was an accomplished fact.

IX. RAWLINSON AS DIRECTOR OF EXCAVATIONS IN MESOPOTAMIA

In 1851 Layard finally left Mesopotamia, convinced apparently that there were no more mounds containing the remains of large buildings with bas-reliefs and "bulls" to be excavated in that country. He was an indefatigable rider, and it is impossible to say where he did not go in Assyria and Babylonia; but there is no record that he ever visited the great mounds in Lower Babylonia, *e.g.*, those of Nuffar, or Niffer, from which Dr. Peters and Mr. Haynes obtained such priceless literary treasures (see Peters, *Nippur*, 2 vols., New York, 1897). It is a matter for wonder, too, that Layard did not attempt to make excavations at Susa (Shûsh), which he had visited in 1841 (Layard, *Early Adventures*, p. 352 ff.). He describes the mound there as being as large as the great mound at Babylon; and according to Kinneir ("Memoir," p. 100) it was in 1813 100 feet high and a mile in circumference. It is possible that the fact of Susa being in Persian territory caused Layard to abandon all idea of excavating the mound. Rassam accompanied him to England in 1851, and the excavations at Ḳuyûnjiḳ and Nimrûd were temporarily committed to the care of Mr. Christian Rassam, the British Vice-Consul at Môṣul. When Layard announced his intention of abandoning archæological work in the East, the Trustees asked Rawlinson to take charge of the excavations, and at Layard's suggestion sent out Rassam in 1852 to carry on the works under his direction.

During the absence of Layard and Rassam in England, the French Government sent out Victor Place (1822–1875) to renew excavations both at Khorsabad and Ḳuyûnjiḳ,

claiming that both places were the property of the French, notwithstanding the fact that the Sulṭân of Turkey had given Stratford Canning permission to dig in any part of Turkey. When Rawlinson returned to Baghdâd at the end of 1851 and began his directorate of excavations, Place, hearing that Layard had abandoned work in Assyria, told Rawlinson that he had been instructed to dig at Ḳuyûnjiḳ; and Rawlinson raised no objection. Thus it fell out, unfortunately, that he had made it impossible for Rassam to continue his work at Ḳuyûnjiḳ; and he was in consequence much aggrieved at his chief's action. Rawlinson thought that Ḳuyûnjiḳ was quite cleared out, and that the site was of no further use to Rassam. Rassam, however, knew that this was not the case, for the northern part of the mound had not been searched at all, and he determined to dig there at all costs; and he was well within his rights in doing so. For Ḳuyûnjiḳ was private property, being owned by a native whose ancestors had bought it from the Turkish Government, and had grown crops on one part of it and pastured huge flocks of sheep on the other. The name of Ḳuyûnjiḳ, which means literally "lambs many," was given to it by the natives, because in the spring the mound was covered with sheep that were driven there to feed upon the new grass and to rear their young. The excavations spoiled the mound for the growth of crops and sheep-feeding purposes; and the owner naturally claimed compensation. Botta, backed by the governor Kiritli Oglu, rode roughshod over the owner's objections, and laughed at his claim for compensation; and the man was ruined. He went to Constantinople to appeal to the Porte, and meeting Layard there told him his trouble. Layard managed to obtain money, presumably from Stratford Canning, and helped the man out of his difficulties, and made an arrangement with

him whereby for a number of years the English obtained the sole right to excavate at Ḳuyûnjiḳ. Rassam therefore protested to Rawlinson, who promptly told Place that the English had purchased the lease of Ḳuyûnjiḳ for excavation purposes; but Place refused to withdraw from the mound, and began to dig. Rawlinson was unwilling to take any action which might be construed as unfriendly to the French; and the whole summer of 1853 was spent in attempting to negotiate. In the autumn, Place continued his excavations; but he altered the direction of them, and began to work towards the northern part of the mound.

During the winters of 1851–1852 and 1852–1853 some of the natives who had been employed by Layard and Rassam in their excavations in 1845–1847 and 1849–1851 had "searched" the mound, and had good reason for believing that there was much to be found in the northern part of it. When they saw Place steadily making his way in that direction, they urged Rassam to act, and to act quickly; and nothing loath, he made arrangements with them to dig through the parts of the mound indicated by them secretly and by night. The first night (Dec. 20, 1853) was passed in removing *débris*. The work of the second night revealed a large bas-relief; and on the third night the magnificent sculptured bas-reliefs of Ashurbanipal's Lion Hunt were laid bare. Secrecy was no longer possible; and Rassam therefore increased the number of his diggers, and worked day and night until they had cleared the chamber, which was 50 feet long and 15 feet wide. In this chamber they found several heaps of inscribed baked clay tablets, but nearly all of them were broken into small pieces. They resembled the tablets which Layard had found in 1849–1851; and as there was nothing to suggest that they had been kept or stored in the chamber, it seemed clear that they had been brought from some other part of the palace of

Ashurbanipal, and hurriedly piled up there in heaps. We now know that the tablets found by Layard belonged to the Nineveh Library, and those found by Rassam to the King's private library. The total number of tablets and fragments which have been brought from Nineveh and are now in the British Museum is, approximately, 25,000; this does not include the thousands of fragments which are too small to deal with. It is impossible to over-estimate the value of this splendid "find" of Rassam's from religious, historical and literary points of view. These tablets have supplied the material by the aid of which the decipherment of the cuneiform inscriptions in the Assyrian, Babylonian and Sumerian languages was completed, and form the foundation of the science of Assyriology.

During one of the journeys which Rawlinson made from Baghdâd to Môṣul, he took the opportunity of visiting Nimrûd, where Layard made such splendid discoveries in 1846–1847, and Ḳal'ah Sharḳât, which marks the site of the city of Ashur, where Layard had excavated between 1849 and 1851. It was as evident then as now that the mounds at Nimrûd had not been completely dug through, and that work at Ḳal'ah Sharḳât had been stopped before the site had been properly examined. The "find" of inscribed tablets at Ḳuyûnjiḳ in 1850 convinced Rawlinson that a collection of similar tablets ought to exist at Nimrûd; and by his wish Rassam went there in 1853, and reopened the excavations. He excavated the temple of Adar, and discovered six fine statues of the god Nabû (Nebo), two of which are now in the British Museum. But he did not find the inscribed clay cylinders which he expected to discover either under the temple-tower (*zikkurat*) or near it. Assyriologists have long wondered why many inscribed tablets were not found at Nimrûd; for there must have been a Library attached to the temple of Nabû,

and presumably one in the palace. Literature must have been held in honour at a Court presided over by such kings as Ashurnaṣirpal and his son Shalmaneser. One tablet was certainly found in the South-East Palace at Nimrûd, namely, that on which is drawn a series of the original pictorial forms of certain cuneiform characters; this is in the British Museum, and was published by Houghton (*Trans. Soc. Bibl. Arch.*, Vol. VI, p. 454). This can hardly have been the only tablet that existed at Nimrûd; indeed, the mere character of the inscriptions upon it suggests that there were others preserved with it at one time. The fact is that many tablets were found both at Ḳuyûnjiḳ and Nimrûd by Layard. Several fragments of tablets were found at the former place before any excavations were made there by Europeans; for the heavy rains washed the earth down from the sides of the mound, leaving the fragments bare and visible. The natives thought they were bits of pottery decorated in an unusual manner; and Dr. Birch told me that Layard thought the same until 1849, when he brought home a few specimens of the "strange pottery" and showed them to him. When Birch told him what they were, and showed him the plates in Rich's "Second Memoir," Layard sent out to Ḳuyûnjiḳ and ordered Mr. Christian Rassam to collect all the pieces of the "strange pottery" he could find, and to put them in baskets until his return to Môṣul. Similar orders were sent to Nimrûd, but it was too late; for the tablets and fragments had been thrown out on the piles of earth that had been excavated, and had since been carried away by the natives to make top-dressing for their fields. We have it also on the authority of Mr. Nimrûd Rassam, H. B. M.'s Vice-Consul at Môṣul, that many tablets were found at Nimrûd; but neither natives nor Europeans knew what they were, and, like the baked clay cylinders

which the natives used to dig out from the foundations of Babylon, they were just thrown away with the *débris* from their diggings. But so much of Nimrûd remains unexcavated, that it is possible that many tablets are still lying there under the mounds.

When Rawlinson returned to Baghdâd in 1851, he found that Place was excavating at Ḳal'ah Sharḳât. The distinguished Frenchman worked there during the whole winter of 1851–2; and though he found little to reward him for his toil Rawlinson did not believe that the possibilities of the site were exhausted. He therefore instructed Rassam to go there and dig into the large, very solid mass of earth and bricks which he thought was the base of the temple-tower of the ancient city. Mr. J. E. Taylor, who had been digging at Muḳayyar in Lower Babylonia, had in that year (1853) found four inscribed cylinders (now in the British Museum) at the corners of the temple of the Moon-god; and Rawlinson thought it very probable that cylinders would be discovered in the foundations of some of the buildings at Ḳal'ah Sharḳât. The result of Rassam's excavations was the discovery of two fine inscribed baked clay eight-sided prisms of Tiglath-Pileser I, king of Assyria (1115–1103 B.C.), now in the British Museum. A third prism was, according to Rassam (*Asshur*, p. 20), found there by Layard in 1852 (1851?). Each of the three was found in a case of masonry at one of the three corners of the square base of the temple-tower; the fourth was, apparently, never found. The inscriptions recorded the building of the temple of Anu and Adad which was founded by Shamshi-Adad about 1820 B.C.; and they showed that the remains at Ḳal'ah Sharḳât are those of the city of Ashur, which is now known to be the oldest capital of Assyria. Writing of his work in 1878, Rassam says :—

COLOSSAL WINGED AND HUMAN-HEADED BULL AND MYTHOLOGICAL BEING FROM A DOORWAY IN THE PALACE OF SARGON II, KING OF ASSYRIA, 722–705 B.C.

Excavated at Khorsabad by Sir H. C. Rawlinson by arrangement with the French Consul at Môṣul.

"At Kalaa-Shirgat I had excavations carried on for some months; but we met with the same meager (*sic*) results as before. The site of this ancient Assyrian city is an enigma to me. Its size and important position make it look most tempting and full of hopeful results to an ardent explorer; but when the spade of the digger penetrates deep into it, nothing but conglomerate rubbish is found in the heart of it, with here and there some sprinkling of fragments of inscriptions, painted bricks and pottery. I have tried the mound over and over again; and yet I could never find a sign of any building. With all these failures, I still believe that it contains valuable remains, which the spade of future excavation will bring to light, as was the case at Birs Nimroud and Babylon" (*Asshur*, New York, 1897, p. 256).

The splendid series of historical stelae found by the Deutsche Orient-gesellschaft at Ḳal'ah Sharḳât prove that Rassam's belief was well-founded.

Before passing to the excavations in Babylonia at this period, reference must be made to the two colossal winged human-headed bulls from Khorsabad that were obtained for the nation by Rawlinson. The winged colossal figures beside them are mythological in character, and are performing a ceremony of anointing the bulls with magical unguent; the whole group is at once the largest, finest, and most imposing of all the Assyrian monuments in the British Museum. They were obtained as the result of a friendly arrangement made between Rawlinson and Place, the former wishing to secure some fine specimens of the architectural work of Khorsabad, and the latter a selection of the sculptured reliefs from Ḳuyûnjiḳ. Place, who never ceased to regard Ḳuyûnjiḳ as French property, viewed the successes of Layard and Rassam on this site with much chagrin, and protested angrily, especially against the action of the latter. Early in 1854 Rawlinson went to Môṣul; and having chosen the sculptures which he thought most suitable for the British Museum, he allowed Place to select those that he wanted for the Louvre. Place selected between 70 and 80 of the remainder, and these were despatched on rafts to Baṣrah for transport to Paris. One

of the rafts, a huge affair between 30 and 40 feet square, loaded up with several of the Ḳuyûnjiḳ bas-reliefs, as well as with a large collection of most valuable antiquities from Khorsabad, got out of control just as it was about to enter the Shaṭṭ al-'Arab at Ḳûrnah, where the Tigris and Euphrates unite, and striking a stony projection on the left bank, heeled over. The French officials in charge of the antiquities had no knowledge of the way in which rafts made of poles supported on inflated skins of goats should be handled in such cases, and insisted on trying to right the raft in their own way. The result was that the raft broke in pieces under the weight of the bas-reliefs, which had been moved to the river side of it; and everything on it fell into the river, and settled down in the mud, where the sculptures now are. The bas-reliefs that reached Paris are now exhibited in the Louvre.

The work of both Layard and Rassam was seriously hampered by want of funds; and on more than one occasion the former would have been obliged to stop work altogether if friends had not helped him with money. When Layard returned to England in 1851, he made this fact known; and Lord John Russell and others founded the Assyrian Excavation Fund, and collected a considerable sum of money, with the view of clearing out Ḳuyûnjiḳ and Nimrûd entirely, and opening other sites in Assyria and Babylonia. Layard refused to return to Assyria; and in 1852 the Fund sent out Mr. (later Sir) W. K. Loftus to carry on the work of excavation. Mr. Loftus was no neophyte; for in 1851 he had made excavations at Susa on the site which he surveyed in 1850. As Rassam was working at Ḳuyûnjiḳ and Nimrûd, Loftus betook himself to Baghdâd, and under Rawlinson's direction made excavations at Nuffar (Nippur), Warka (Erech), Sangarah (Larsa), Muḳayyar (Ur of the Chaldees) and Abû Shaḥrên (Eridu) in Lower Babylonia.

The objects that he found were sent home to the British Museum, together with a report on his discoveries, which is, presumably, now among the official Archives in the Director's Office. Loftus was the first to bring back specimens of the large glazed coffins which were in use in the Parthian Period, and of the baked clay sickles, which, it is thought, were used by the peasants of a still earlier period in cutting fodder or in reaping grain. In the same year he published a volume of lithographed copies of cuneiform texts without a title-page or introduction, and of course without any translations. Rassam left Môṣul on May 1, 1854, and returned to England; and in response to a request made by the Trustees of the British Museum, he agreed to go back to Ḳuyûnjiḳ and finish the excavations there. But for private reasons he felt that he was bound to accept the offer of a permanent political appointment at Aden which Sir James Outram, the Resident, offered him at this time, and therefore did not go back to Ḳuyûnjiḳ. Thereupon Rawlinson directed Loftus to go to Môṣul and finish the excavations there, the British Museum and the Assyrian Excavation Fund providing the funds jointly. Loftus opened several parts of the mound of Ḳuyûnjiḳ, but found only a few bas-reliefs. He did most useful work in clearing out the trenches and rooms which his predecessors had only partly excavated; and he was rewarded by the discovery of many tablets, bricks and small objects which they had overlooked. Botta, Layard, Ross and Rassam piled up the contents of the shafts and trenches which they dug immediately above them, and never attempted to carry away the *débris* to a distance. It made excavation easy for them, but it rendered the work doubly difficult for their successors, who wished to dig through those parts of the mound that were buried under the *débris*.

Whilst Rawlinson was Director of Excavations, Dr.

Jules Oppert (1825–1905), the eminent Professor of Assyriology in the Collège de France, was sent on a mission to Mesopotamia (see his *Expédition en Mésopotamie*, 2 vols., Paris, 1863); and he made an exhaustive study of the ruins of Babylon and Birs-i-Nimrûd. With the view of assisting him in the compilation of his map of Babylon, Rawlinson had some excavations made at the Ḳaṣr, or "Fortress of Babylon," but he obtained no results of importance. At the same time he set Tonietti to work at Birs-i-Nimrûd, which the Jews called Bûrsî and Bûrsîp, and the Greeks Borsippa. He found in the base of the temple-tower (*zikkurat*) some inscribed cylinders of Nebuchadnezzar II, thus proving the correctness of the Arab geographer's statement (Yâḳût, Vol. I, p. 565) that there were "ruins of Nebuchadnezzar and a high hill called the Tower of Burs at Al-Birs." It is to be regretted that Tonietti did not extend his excavations to the temple of Nabû close by, and to the mound of Ibrâhîm al-Khalîl, where, thirty years later, so many important objects were discovered. During the last year (1854) of Rawlinson's work at Baghdâd, Mr. J. E. Taylor, British Vice-Consul at Baṣrah, carried out tentative excavations at Muḳayyar (Ur of the Chaldees), and in the following year he extended his operations to Tall Abû Shaḥrên, which marks the site of Eridu, probably the oldest Sumerian city mentioned in the inscriptions, and to Tall al-Lahm, where are the ruins of another ancient city, at present not identified. A description of the results obtained from these excavations will be found in Taylor's papers printed in the *Journal* of the Royal Asiatic Society, Vol. XV, p. 260 ff. and p. 404 ff. The grant made by the Treasury to the Trustees of the British Museum for excavations in Babylonia was £3,000; and everyone who takes the trouble to examine the results obtained under Rawlinson's Directorship of Excavations must admit that

his administration was both economical and fruitful. He loved the work, and treated it as a part of his duty as Consul-General of Baghdâd, and received no extra money for his services. Being convinced that no remains of large ancient buildings similar to the palaces and temples of Assyria were to be found in Babylonia, he felt, when Mr. Taylor had finished his excavations at Muḳayyar and the neighbouring sites, that the time had come for him to return to England, in order to establish on a broader base the science of Assyriology which he had founded.

Therefore he resigned his Consul-Generalship of Baghdâd in February 1855, and returned to England. The only appointment he accepted afterwards was that of Minister Plenipotentiary to Persia; but he only held the office for about ten months (April 16, 1859, to Feb. 20, 1860). His knowledge of Persian literature and of the ancient history of the country, to say nothing of the facility with which he spoke the language, made him *persona grata* with the Shâh and his Court; and on his departure from Teheran the Shâh and his Ministers said openly that they had lost a wise adviser and an understanding friend.

X.—RAWLINSON AND THE PUBLICATION OF CUNEIFORM TEXTS.

The publication of the monuments of Khorsabad by Botta, and those of Nimrûd and Nineveh by Layard, and the translation of the inscriptions on the Rock of Bihistûn in the "Memoirs" by Rawlinson and Norris, and Oppert's translation of a unilingual inscription from Khorsabad had excited the interest of scholars, and the wonder and admiration of the nation generally. When Rawlinson arrived in England, he was at once acknowledged by all those who had followed his researches to be the chief authority on cuneiform decipherment; and from theo-

logians and historical students and Oriental philologists demands for further information poured in upon him. It was a fairly easy matter in 1855 for him to answer questions about the comparatively few inscriptions from Persia and the Rock of Bihistûn; but since he had published his "Memoir," in 1846, a vast mass of cuneiform inscriptions on bas-reliefs, obelisks, memorial tablets, bricks, boundary-stones, baked clay prisms and barrel-shaped cylinders, and two libraries of baked clay tablets inscribed in cuneiform, had been brought to London from Nineveh, Nimrûd, Ḳal'ah Sharḳât, Babylon and several sites in Lower Babylonia; nearly all these were undeciphered, and of only a very few were even the general contents known to him.

Whilst the excavations were in progress in Assyria and elsewhere Layard made copies of several cuneiform inscriptions; and of those that he could not copy he made "squeezes," *i.e.*, impressions taken by beating sheets of moistened cartridge or other paper into the inscriptions, and letting them dry. These he brought home in 1849, and handed over to the British Museum, and the Trustees promptly made arrangements for publishing them. The preparation of the copies for the printer was entrusted to Birch, then an Assistant in the Department of Antiquities. Birch was not an Assyriologist in the modern sense of the word; but he had studied all that had been written on the cuneiform inscriptions, and especially the papers of Hincks on the Assyrian Syllabary. He was in constant communication with Hincks, Rector of Killyleagh in Ireland, and with Norris; and the latter helped him in restoring passages where the "squeeze" was torn or defective, and in correcting Layard's pencil copies. Layard never professed to have any knowledge of even the simplest forms of the cuneiform characters, and only set down in his note-books what he thought he saw. That he confounded the

Sir Austen Henry Layard, Kt., D.C.L.

Samuel Birch, D.C.L., LL.D.

signs at times was only what Niebuhr, Grotefend, and the later copyists did, when they could not read what they were copying; the wonder is that so much in Layard's copies was correct. At length Birch and Norris finished the copies, and, having been revised by Rawlinson, who spent the whole of the year 1850 in England, they were reproduced in type in folio form under the title, "*Inscriptions in the Cuneiform Character from Assyrian Monuments discovered by Sir A. H. Layard, G.C.B., D.C.L.*" Printed by Harrison and Sons, London, 1851. The publication of this volume placed a mass of new material in the hands of students; and the promptness with which the Trustees made available to the public inscriptions which only five years earlier had been buried under the mounds of Ḳuyûnjiḳ and Nimrûd is beyond all praise.

But though the appearance of these texts stimulated the study of the cuneiform inscriptions, a close examination of them and of the renderings of parts of the text on the Black Obelisk, published by Rawlinson and Hincks, caused many scholars and students to doubt the correctness of their system of decipherment. The stumbling-blocks to them were the homophones and the polyphones, the use of which was at that time only understood by the actual decipherers themselves; that a character could have several phonetic values, and several characters have the same value, seemed to them to be incredible. Rawlinson explained the difficulties time after time in the lectures which he delivered before learned societies and private bodies of students; but the public generally were not convinced. He exhibited explanatory diagrams and copies of texts, and by the use of the blackboard showed how he had deduced the values of the characters; but scepticism prevailed. It may be noted in passing that the copies of the Persian text of the two trilingual inscriptions at Elvend

which he used at his lectures, are exhibited over the doorways of a room in the Second Northern Gallery in the British Museum. They were formerly in the possession of Mr. Isaac, a member of the subordinate staff of the Museum, who acted as demonstrator at Rawlinson's lectures. In the same Gallery will be found casts of some of the Pehlevi inscriptions of the Sassanian kings which were translated by de Sacy, and which guided the early decipherers in their attempts to translate the older Persian texts.

Several of Rawlinson's friends pressed him to make some general pronouncement on the decipherment; but he always refused, saying, "We do know a little about it, but there is a great deal more to find out; and until I have studied all the tablets from Nineveh and Babylonia, I shall say no more." The matter was, curiously enough, brought to a head in 1856–1857 by William Henry Fox Talbot (1800–1877), the eminent mathematician and inventor of the "Talbotype" system of photography in 1840. He was a frequent visitor of Birch's and a close student of the works of Hincks and Rawlinson, and was no mere amateur Orientalist. He was convinced of the accuracy of their methods, and suggested to Norris, then Secretary of the Royal Asiatic Society, that his Society should call upon three or four prominent cuneiform scholars to translate independently a long Assyrian inscription, and that each should send his translation in a sealed packet to the Society, and that a committee should be appointed to open the packets and compare the translations, and report publicly upon them. He himself made a translation of the great inscription on the three baked clay prisms of Tiglath-Pileser I, which had been found at Ḳal'ah Sharḳât, and sent it under seal to the President of the Society. He made his translation from Mr. Bowler's lithograph copy, which was

H. Fox Talbot, F.R.S.

Rev. Edward Hincks, D.D.

prepared from Norris's manuscript copy, and which afterwards appeared in Rawlinson's great official publication. Rawlinson, Hincks and Dr. Jules Oppert were each supplied with a copy of the lithographed text, and each was asked to send in a translation under seal, as Fox Talbot had done. In due course each scholar finished his translation, and sent it in to Prof. Horace Hayman Wilson (1786–1860), who was then Director of the Royal Asiatic Society. At a meeting of the Society, Prof. Hayman Wilson, Sir Gardner Wilkinson, Mr. Grote, Dr. Whewell, Master of Trinity College, Cambridge, Dr. Milman, Dean of St. Paul's, and some other gentlemen who were to act as referees were chosen to examine and report upon the four translations. The most complete translation was that of Rawlinson; and that of Hincks, which was by no means complete, agreed closely with it. Passages in Fox Talbot's translation were paraphrastic in character, and though there were many parts of it which agreed with the renderings of Hincks and Rawlinson, there were others that showed he had missed the scribe's meaning. Viewed as a whole, it is certain that Oppert's translation showed that he worked on the same lines as Hincks and Rawlinson; but, with characteristic independence, he had not used the lithographic copy of the inscription sent to him, and had made a copy of the text for himself. And he wrote his translation in English, which seems to have been a language that he was not in the habit of using for such purposes; and the exact meanings of several passages were doubtful. He annotated his renderings very fully, and quoted several Semitic and Aryan languages in support of his translations of difficult passages. The report made on the translations by Prof. Wilson and his colleagues showed that they regarded the decipherment of the Assyrian inscriptions as an accomplished fact, although it proves that the close agreement in the

translations which they thought should exist was wanting. But it had a very good effect on the opinion of the learned world, and produced in the minds of the general public a keen sympathy, which had been hitherto lacking.

The translation of the Tiglath-Pileser inscription being disposed of, Rawlinson felt that the time had come to undertake the publication of all the long texts that were available, and especially of the new material from Ḳuyûnjiḳ, to which Norris, after the publication of his edition of the Susian Version of the Bihistûn Inscription in 1855, had been able to devote close attention. About this time (1857) the Trustees of the British Museum discussed the publication of the inscriptions on the baked clay prisms, barrel-shaped cylinders, bricks and tablets in their keeping, and he agreed to edit them, together with English translations and commentary, in a series of folio volumes, to be called the *Cuneiform Inscriptions of Western Asia*. Each volume was to contain 70 plates of text, though why the number 70 was chosen is not clear. The edition of each volume was to be 250 copies; 125 copies were to be sold to the public, and the remainder were to be reserved until the time when Rawlinson could supply the translations, which were to be printed and bound up facing the original texts. The volumes were to range with the volume of cuneiform texts from the monuments discovered by Layard, which the Trustees had published in 1851. That volume was printed from the fine, bold cuneiform type which Messrs. Harrison had specially cut in 1843 for printing Rawlinson's "Memoir," and other communications to the *Journal* of the Royal Asiatic Society, of which they had been the printers since 1830. But though this type was admirably suited for printing Assyrian texts, the complicated characters of Babylonian inscriptions could not be reproduced by it; and Rawlinson determined to have recourse to lithography

for their reproduction. He decided that they could be represented more accurately by lithography than by types, of which a long series would have to be specially cut; and the great cost of designing and cutting such types made the idea of using them impossible. Another reason for using lithography was the fact that the services of a competent lithographer were available. This lithographer was Mr. Bowler, whom the East India Company had employed to make the excellent facsimile of the inscription of Nebuchadnezzar II from the famous "Black Stone," which Sir Harford Jones Brydges (1764–1847) acquired at Babylon and sent home to the East India House in 1807. It is now preserved in the India Office, but there is a painted cast of it in the British Museum (No. 90,847); and another, similar in all respects, presented by myself in 1922, will be found in the Library of the Royal Asiatic Society. Mr. Bowler had made a list of all the Babylonian characters then known, and it was for many years an authoritative document, and was frequently consulted by both Norris and Rawlinson.

The general plan of the first volume of the *Cuneiform Inscriptions of Western Asia* having been settled, Rawlinson began to collect his material without delay. He had been elected a Crown Director of the East India Company in 1856, and became Member of Parliament for Reigate in 1858, but resigned his seat the same year on being elected a member of the newly-appointed India Council. In 1859 he was appointed Minister Plenipotentiary to Persia; but he held that office for less than a year, because his views about the operations of Russia did not agree with those of less well informed politicians at home. It is easy to understand that from the end of 1855 to 1860 he could devote very little time to his favourite study, and to active co-operation in the publication of texts; and thus it happened that the greater part of the work connected with the

preparation of the first two volumes of the *Cuneiform Inscriptions* fell to the lot of Norris, who had edited Rawlinson's "Memoir" and had seen it through the press in 1844–1846. Rawlinson directed and made plans, but it was Norris who worked out these plans and made them take shape; and Assyriologists have forgotten how much they are indebted to the infinite patience and never-ceasing labour of that modest and simple-minded man. Norris was born at Taunton in 1795, and before he was twenty had learned Armenian and kindred languages, and several European languages. At the age of twenty-three he entered the service of the East India Company, and studied Indian, African and Polynesian languages; he became Assistant Secretary of the Royal Asiatic Society in 1838, the year in which Rawlinson sent his first paper to that Society. He then studied the various languages that he knew were akin to Old Persian; and thus he was able to deal with the various sections of Rawlinson's "Memoir" as they arrived, and prepare them for the printer. In 1845 he deciphered the rock-inscription of King Asoka at Kapur di Giri, and for several years sent to Rawlinson at Baghdâd abstracts of all the papers on the cuneiform inscriptions that appeared in England and on the Continent, with shrewd and helpful criticisms and remarks. He had a competent knowledge of several African languages, including Haussa, Bornu and Fulah, and published two valuable volumes on the Cornish Drama, which included the texts of many very old Cornish plays. He founded the Ethnographical Library, and edited one edition of Pritchard's "Natural History of Man." As an Oriental scholar he will be best remembered by his translation of the Susian Version of the Bihistûn Inscription, published in the *Journal of the Royal Asiatic Society* (Vol. XV, 1855), and by his "Assyrian Dictionary," the first volume of which appeared in 1868. In this work,

a marvellous production for its time, he gave not only the Assyrian words with their equivalents in cognate Semitic dialects, but also, printed in cuneiform type, extracts from the texts in which they appeared, together with English translations. He died in 1872, and left the dictionary unfinished. This book was of the greatest use to students, for it provided them with a reading-book and material for study; and Norris, seeing that the development of Assyriology was in the hands of the young student, tried to help the beginners. His most valuable work in Semitic philology was done in connection with his work on the Ḳuyûnjiḳ tablets. He was the first to recognise the importance of the lists of cuneiform signs, which the ancient Assyrian scribes had drawn up for the use of their pupils, and to see that they could be used in settling many of the questions which between 1850 and 1855 were vexing the minds of decipherers. They showed that the Assyrians and Babylonians did not use for writing an ALPHABET, like the Persians, but a SYLLABARY, and that each cuneiform character, with the exception of the vowel signs A 𒀀, E 𒂊, I 𒄿 and U 𒌋 or 𒌌, was in itself a syllable, either simple or compound. The simple syllable contains a vowel and a consonant, e.g., *ba*, *bu*, *ki*, *ku*, and the compound syllable two consonants with a vowel between them, e.g., *man*, *bit*, *mul*, *lil*, *gir*.

Another important result obtained from the examination of the lists and other tablets from Nineveh, and a tablet from Larsa, was the discovery that the language in which many of the texts were written was not Semitic. Rawlinson and Norris found that the non-Semitic texts were furnished with interlinear Assyrian translations, and that many of the words and forms in them were found on other tablets containing lists of words to which Assyrian (or Semitic) translations or explanations were added. They

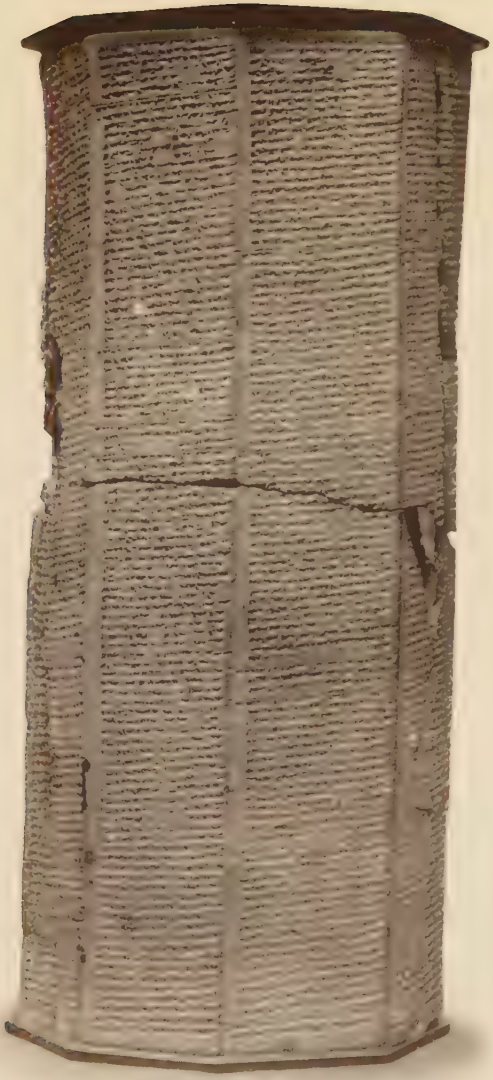
saw that the inscriptions stamped on bricks that had been found in Babylonia were written in this language; and Rawlinson concluded that this language had been spoken by the early non-Semitic inhabitants of the country before the Semitic Babylonians established themselves there. As in the historical inscriptions which he had read he found that kings called themselves "King of Sumer and Akkad," he held the view that the early dwellers in the land were "Akkadians," and that the language they spoke was "Akkadian." Hincks was the first to call the language "Akkadian," for Rawlinson spoke of it as the "Chaldean or Hamitic language of Babylonia." For many years this non-Semitic language was called by this name by Assyriologists. Oppert, on the other hand, maintained that its correct name was SUMERIAN, and that this language was the tongue of the early inhabitants of Babylonia. This view is now accepted generally; and the Semitic Babylonian language is now called "Akkadian." About 30 years after Rawlinson's discovery of the Sumerian language, the eminent French Orientalist Halévy denied its existence, and asserted that the inscriptions in it were a species of secret writing invented by the Semitic Babylonian priests who, according to his theory, were the inventors of cuneiform writing. For a time Halévy's views were accepted by many scholars, including Delitzsch; but at length, chiefly through the writings of Oppert, Lenormant, Sayce and Hommel, who agreed that Sumerian was a language, the old view of Rawlinson and Hincks was proved to be correct. The first useful grammar of Sumerian was published by Prof. Langdon in 1914; but the great want of students was material to work upon. This want has been supplied by Mr. C. J. GADD, of the British Museum, who in 1924 published "A Sumerian Reading Book" (Clarendon Press, Oxford). The author shows that every

Sumerian character is, in origin, a picture of some object familiar to primitive man, and that the Sumerians, between 3500 and 3000 B.C., had arrived at the stage when they could use certain of these pictures in combinations solely for the sound of the word which expresses the idea they represent, without any direct reference to the object depicted, and can thus serve in *writing* some portion of a word entirely unconnected with the original of the picture. At this stage true writing begins, as it ends at the stage where the smallest possible number of symbols is used to represent sounds when the origin of the symbols themselves has been entirely obscured, as in the case of the modern alphabet . . . Sumerian writing, as now known, is a combination of pictorial and phonetic writing of which it might be said that, for the most part, the former constitutes the skeleton of the speech, and the latter covers it with the flesh of grammatical coherence.

The cuneiform script in which the Sumerian language is written is undoubtedly of pictorial origin; but at the earliest known period it was already conventionalized to the point of entirely obscuring, in the case of many signs, the original object depicted (Gadd, *Sumerian Reading Book*, pp. 8 and 9). The wedge (Lat. *cuneus*, hence the word "cuneiform" applied to the wedge-writing) had originally no part in the composition of the characters; and its existence is entirely due to the material for writing used by the scribes. That material was clay; and the outlines of pictures of curved and round objects soon became straight lines and subsequently wedges. Thus the circle O, which represented "sun," "day," is written ; and in Assyrian inscriptions this is simplified into . For other examples, see Houghton, *Trans. Soc. Bibl. Arch.*, Vol. VI. p. 454, King, L. W., *First Steps*, London, 1898, p. xxiii, and Deimel's edition of the *Schultexten*.

Though the plans for publishing the inscriptions in the British Museum were completed in 1856 it was not until the early part of 1861 that the first volume of the *Cuneiform Inscriptions of Western Asia* was given to the public. Its appearance marked an epoch in the history of Assyriology; and its value to the student is almost as great now as then. It would be incorrect to say that there are no mistakes in the texts; but when we consider that Rawlinson and Norris were publishing some texts, like those on the bricks from Babylonia, that they could neither read nor understand, and others that contained scores of words of the meaning of which they were ignorant, the marvel is that the mistakes are so few. The drawings of the characters are wonderfully accurate, and reflect great credit on Bowler the lithographer, who by means of them set the standard which has always been followed in the publication of cuneiform texts issued by the British Museum. The characters are bold and clear, and are free from the uncertainty that marks the publications of many Continental scholars, who have been in the habit of "shading" the characters that they could not read, or about the values of which they were in doubt. This "shading" is usually an indication, not of scientific accuracy, but of unskilfulness in copying, or of haste. The best copyist, in reproducing a closely-written Assyrian or Neo-Babylonian text, may mistake a character; but he should always write clearly, and never let the student be in doubt as to *which* character he thought he was writing.

The texts given in the first volume of the *Cuneiform Inscriptions* were chiefly historical. The first five plates contain inscriptions from bricks found at Muḳayyar (Ur), Warka (Erech), Nippur (or Nuffar), Abû Shaḥrên (Eridu), Uḥêmar (Kish), Babylon, and other early Babylonian sites. The short Assyrian texts given on plates 6–8 are followed



Cylinder of Tiglath Pileser I, 1115–1103 B.C.
Discovered by Rawlinson at Kal'ah Sharkât in 1853.

by the great Assyrian inscriptions of Tiglath-Pileser, Ashurnaṣirpal, and Shamshi Adad (plates 9–31). Next come inscriptions of all the great kings but one of the last Assyrian Kingdom, Sargon II, Sennacherib and Esarhaddon; and then we have a group of texts of the Babylonian kings Nebuchadnezzar II, Neriglissar and Nabonidus. Bearing in mind the difficulty which students would find in reading the complicated Babylonian characters, Rawlinson added transcripts of three of them into the ordinary Assyrian script. And in order to make as many historical texts as possible available for the student, he included copies of the cylinder of Nebuchadnezzar II in the possession of the famous antiquary and Trustee of the British Museum, Sir Thomas Phillipps (1792–1872), the cylinder of Neriglissar presented by Sir John Malcolm in 1908 to the Library of Trinity College, Cambridge, and the cylinder of Nebuchadnezzar II, which Rich purchased at Babylon and published in his *Second Memoir on Babylon*, London, 1818. On the last sheet of the volume, Rawlinson gave a copy of the text on the boundary-stone preserved in the Cabinet de Médailles, Paris. This stone was found by the natives whilst digging for top-dressing in the ruins of Ctesiphon, on the Tigris, and was purchased by M. André Michaux (1746–1802), a botanist and physician resident in Baghdâd in 1780. The estate referred to in the text was situated near a city called Bak-da-da, which the early decipherers believed to be the original form of the name of Baghdâd. When the volume appeared, complaints were made in certain quarters that Rawlinson had not given to the public any information about the contents of the inscriptions, but they were unreasonable. It is quite true that he could not read all that he had published in the volume, and he was the first to admit the fact; but he took the right course in making the texts available for

study to workers all over the world. Mistranslations and faulty readings have a way of perpetuating themselves; and it was due to his innate dislike of publishing translations and readings of names based on guesswork that he finally abandoned the idea of adding translations and notes to the plates which the Trustees had handed over to him for this purpose.

Rawlinson's second volume appeared in 1866, and was entitled *A Selection from the Miscellaneous Inscriptions of Assyria;* it contained copies of inscriptions from the tablets and fragments found at Ḳuyûnjiḳ, made chiefly by Norris, and lithographed by Bowler. The texts contained lists of cuneiform signs written in two languages (Proto-Babylonian, *i.e.* Sumerian, and Assyrian), lists of animals, birds, stones, wooden objects, parts of the body, countries, cities, rivers, gods, etc., and grammatical compositions which the scribes drew up to help their pupils to learn the Sumerian language. And the volume contained a great mass of lexicographical material of the first importance, as well as a most valuable text dealing with the Synchronous History of Babylonia and Assyria. The table of contents is somewhat meagre, and well displays Rawlinson's caution in describing texts which were not at the time well understood by him.

The third volume of Rawlinson's "Selection" appeared in 1870; and it provided the student with a mass of material dealing with chronology, history, astronomy and astrology, mythology and commerce of the Assyrians, as well as copies of fragments of syllabaries and grammatical texts which either supplemented or helped to complete the texts already published in the second volume. No systematic arrangement of the texts was attempted, and only specimens of the different classes of tablets were given, Rawlinson's view being that it was better to publish at once the texts

that were tolerably complete than to wait until a scientific classification of the tablets and fragments according to their subject-matter could be effected. Norris was especially interested in the syllabaries and grammatical texts, because from them he found it possible to deduce the values of many characters, and, with the help of his knowledge of Hebrew, Syriac and Chaldee, to translate the Semitic equivalents of the Sumerian words in the Lists of Words and Synonyms. Rawlinson, on the other hand, was keenly interested in historical texts, especially those of the kings of the last Assyrian Empire, which were likely to throw light on the historical books of the Bible.

When the second volume of the "Selection" was published in 1866, Norris, according to the statements of Mr. W. S. W. Vaux, found that his devotion to the study of the tablets had injured his eyesight; and he was anxious to do some work to help forward the study of Assyriology other than that of copying texts. Whilst copying for Rawlinson, he made a large collection of Assyrian words, with references to the texts in which they were found, and proposed to compile a "Skeleton Dictionary" of the Assyrian language. He prepared a specimen sheet, which was printed in the *Journal* of the Royal Asiatic Society for 1866; and as the idea was warmly welcomed by Hincks, who assisted him in preparing the specimen sheet, and by Rawlinson, he determined to put his plan into execution. A public-spirited gentleman who saw the specimen approved of it generally, but said that the work ought to be done on a larger scale, and that the original text of all the passages from which words were excerpted should be printed in cuneiform type. When Norris pointed out to him that (even in those days) cuneiform printing was an expensive luxury, the gentleman, who wished to remain anonymous,

undertook to defray the whole cost of printing the Dictionary, provided that Norris enlarged it and made his entries as full and comprehensive as possible. Thereupon Norris instructed Messrs. Harrison to cut new types, and abandoning all other occupations, he rewrote the manuscript of his Dictionary, added many new words and extracts to it, and then settled down to see the book through the press as fast as his enfeebled health would permit.

Meanwhile the loss of the services of Norris was a serious matter for Rawlinson, who had received instructions from the Trustees to prepare another volume of the "Selection." For the first few years after his return from Baghdâd in 1855, he visited the British Museum frequently, and worked hard with Norris in examining the tablets and preparing copies of the texts for the lithographer. But, as the years passed, he found it more and more difficult to find time for the study that the tablets demanded; and but for the energy of Norris the appearance of the first and second volumes of the *Cuneiform Inscriptions* would have been delayed indefinitely. From 1865 to 1868 Rawlinson sat as Member for Frome; and in 1868 he was again elected a member of the India Council. The Government called upon him frequently for advice and assistance in dealing with Indian, Persian and Russian politics; and his Parliamentary duties naturally absorbed a great deal of his time. That he was in great need of an assistant in 1865 is obvious; and to find one with the special qualifications possessed by Norris seemed impossible. Rawlinson hoped that he would have obtained help from the Assistant who was then in the Department of Oriental Antiquities; but it was not forthcoming.

For a few years after the Bihistûn inscriptions were deciphered, there was a good deal of loose talk about

the importance of a knowledge of Zend and Sanskrit for the purpose of decipherment; and in 1860 the Trustees decided to give Birch an Assistant who knew one or other of these languages, if he could be found. William Henry Coxe, the eldest son of Henry Octavius Coxe (1811–1881), the famous Bodley's Librarian, was chosen, and was appointed Assistant in the Department of Oriental Antiquities in May 1861. "Coxe of Balliol" was a good classical scholar; and he had studied Sanskrit with such success that he won the Boden Scholarship. Birch described him as a genius, quick in thought, bright and lively, with pleasing manners, and said that he was liked by all who knew him. He made the acquaintance of Norris (who was then almost daily in the Museum copying the texts of the Ḳuyûnjiḳ Collection for Rawlinson), and was expected to study that Collection and to make himself an expert in copying. But when he realized that these texts were written in the non-Semitic Sumerian language, and in Assyrian, a Semitic language, he found that his knowledge of Sanskrit, which might have helped him in the Persian inscriptions, was of little use to him for his daily work. He examined the Collection day by day, and did some good work in identifying fragments of tablets that could be re-joined; but the "chaos of the tablets," as he called it, prevented him from entering on his new work with enthusiasm, and he wanted to be transferred to the Department of Manuscripts, where his knowledge of Sanskrit could be used to good purpose. Early in 1865 he was offered the Professorship of Sanskrit at King's College; but permission to hold it conjointly with his Assistantship in the Museum was refused. In the autumn of the same year, through Rawlinson's influence, he was offered an appointment in connection with the Educational Service of Bengal; and he resigned his post in

the Museum in Jan. 1866, and went to India. But as the Indian authorities required the services of a Sanskrit scholar with the knowledge of a Monier Williams or a Max Müller, Coxe returned to England, and was reappointed as Assistant in December of that year. Meanwhile Norris had ceased to attend at the Museum; and George Smith was being employed as a temporary copyist for the Department. Work in the Museum now became uncongenial to Coxe; and early in 1868 his health broke down. For about eighteen months his sick-leave was almost continuous; and at length he was asked to send in his resignation before the end of January 1870. After a period of great suffering, during which he was nursed in the house of Mr. (later Sir) C. T. Newton, he died on Dec. 18, 1869.

But Rawlinson's good fortune did not forsake him; and Fate provided him with a marvellously capable assistant in the person of George Smith. This remarkable man was born on March 26, 1840, in Chelsea, and died at Aleppo on August 19, 1876. At the age of fourteen he was apprenticed to Messrs. Bradbury and Evans of Bouverie Street, and was intended to learn bank-note engraving. In this work he soon made great progress; for he possessed a keen, accurate eye and deft fingers, and had he devoted all his energies to his trade, he would undoubtedly have become one of the master-engravers of the nineteenth century. This was the opinion expressed by one of the partners, when Smith left the firm to enter the service of the Museum; and another of them regarded Smith's abandonment of a well-paid trade and regular employment, in order to follow his literary bent, as an act of pure folly. One of Smith's favourite books as a boy was the Bible; and at an early age the historical books fascinated him, and he read greedily every book he could lay his hands

on which described the East or in any way amplified the Bible narrative. The poetical books of the Bible caught his imagination; but his real interest was centred in the Books of Genesis, Samuel and the Kings. The books of Layard opened a new world to him; and the story of the decipherment of the cuneiform inscriptions seized his mind with a force almost indescribable. He stinted himself to buy the works of Layard, Rawlinson, Vaux and Bonomi, and spent his evenings in devouring their contents. But he also studied the antiquities from Nineveh and Babylon which were exhibited in the British Museum as they arrived, and thus laid the foundation of his knowledge of practical archæology which served him so well in later years. He spent in the British Museum most of his few holidays, and most of his dinner hours on the three days of the week in which the Sculpture Galleries were open to the public. About 1861 his visits to the Museum attracted the notice of Birch, who had recently been made Keeper of Oriental Antiquities, and who gave him many of the sheets of the first volume of Rawlinson's *Cuneiform Inscriptions*, and introduced him to Norris. A year or two later, it became apparent to Smith's friends in the Museum that his knowledge of the inscriptions on the Babylonian bricks, and of the historical inscriptions recently published, was very considerable; and Smith was employed by the Museum officially as a "repairer." His work was to go over the fragments of inscribed tablets from Nineveh, and to find out those fragments that could be rejoined; and his facility in identifying the nature and character of the inscriptions upon them enabled him to make many remarkable "joins." He read the Ninevite script with the greatest ease, and his ability to find the general meaning of a passage in an inscription, even though there were words in it that he did not know, proved that he possessed

real genius. Like Rawlinson, he *felt* what an inscription must mean; and his instinct was very rarely at fault. In 1866 he began to publish some of the results of his work in the *Athenæum;* and Birch suggested to Rawlinson that Smith should be made an Assistant in his Department, and that he should be employed in copying cuneiform texts for the proposed new volume of the "Selection." Rawlinson approved the suggestion, and made representations to the Trustees; and towards the close of 1866 Smith was appointed an Assistant in Birch's Department.

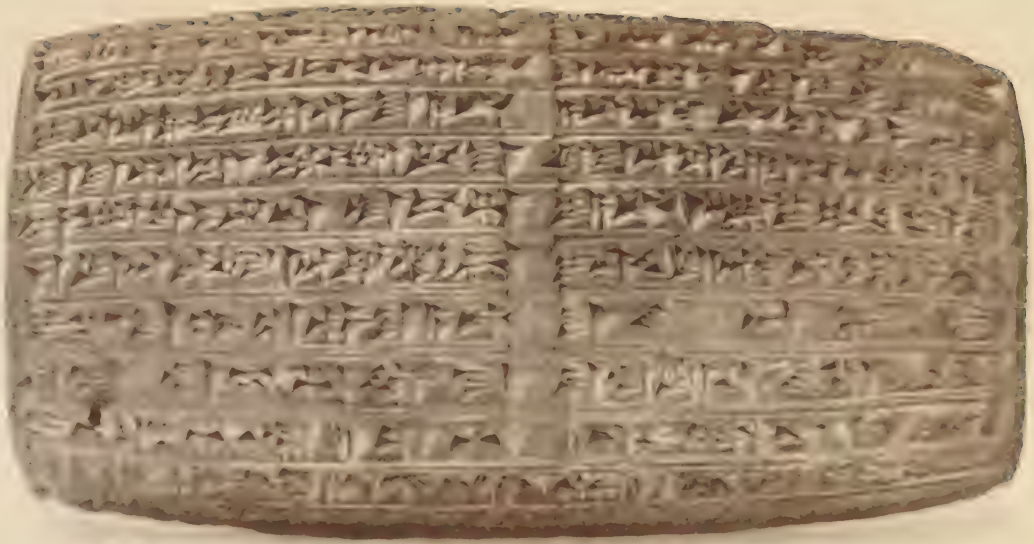
In 1867, Smith began a systematic examination of the tablets and of the paper "squeezes" of inscriptions made in the East by Layard and Rawlinson. Acting on Rawlinson's advice, he grouped the fragments according to their subject-matter, and searched most diligently for inscriptions of a historical character, especially those that would throw light on the Bible narrative. He worked incessantly, and heartily cursed the London fogs which deprived him of light, and often caused the whole staff to be sent home. The only artificial light allowed in the Museum in those days was supplied by a very limited number of moderator lamps, which were reserved for the use of Keepers, and locked lanterns, which were not numerous. At first, when the tablets arrived, they were laid out on tables and planks on trestles in the large room over the Board Room. But when this was required for the Accountant's Office, Smith was moved to a small room on the south-west staircase; and a large number of the tablets were arranged in presses with special shelf accommodation. Here he worked, and prepared copies for the lithographer, and collated the proofs for Rawlinson's revision. Considering the imperfect state of Assyriological knowledge at that time, and the difficulty of reading the tablets, hundreds of which were still un-

cleaned, and the defective state of the paper "squeezes" from which Smith worked, his copies are wonderfully good, and merit the highest praise and the sincere gratitude of all scholars. He, and the lithographer, made mistakes, of course; but his completions of broken texts and characters prove that he really did understand much of what he was copying; and no other man at that time could have done the work as well as he did. The third volume of Rawlinson's "Selection" shows that Smith's knowledge of the contents of the tablets of Nineveh was extraordinarily wide, and that his genius and instinct enabled him to select unhesitatingly the best and most important texts for publication.

The interest evoked by the publication of the mass of important new material in the third volume induced the Trustees to order the preparation of a fourth volume under Rawlinson's direction; and the selection of the material and the copying of the texts were entrusted to Smith. By this time he had succeeded in grouping the tablets from Nineveh according to their contents; the cleaning of many of the larger fragments and tablets had been carried out, and he found it possible to include in his selection of texts specimens dealing with subjects hitherto unknown. The bilingual texts in Sumerian and Assyrian were already the subjects of careful study in England and France; and Rawlinson decided that the new volume should contain as many bilingual, magical and religious texts as possible. As each sheet was printed off, Rawlinson, with characteristic generosity, sent copies to Oppert, Lenormant and others; and it was in these that the latter scholar found most of the material for his works on the "Accadienne" (*i.e.*, Sumerian) language. Thus it fell out that some scholars were able to publish as original work copies of texts which were merely reproductions from the

sheets of the official edition of the British Museum, and to claim priority of publication!

Whilst Smith was preparing the copies for the third volume of *Cuneiform Inscriptions*, he made copious notes about all the tablets that passed through his hands, and thus collected a great deal of material worthy of publication. The natural place for most of it was Rawlinson's official volumes; but the authorities, and even Rawlinson himself, thought that texts and nothing but texts, with the briefest possible general description of their contents, should appear in them. Rawlinson's argument was that the proper places for philological discussions and tentative translations were the *Transactions* and *Journals* of learned Societies; and it was this view that made him abandon the idea of adding translations in a special edition of his first volume. Meanwhile Smith had compiled a history of the early kings of Babylonia, based on Rawlinson's manuscript list of kings, and had collected and translated the inscriptions of Ashurbanipal; and he was anxious to publish them. But he was comparatively unknown outside the Museum; and even Nicholas Trübner was not ready to embark on the publication of Assyriological works in which cuneiform types in large numbers were necessary. The difficulty of publication was solved by the help of Birch, J. W. Bosanquet, the banker, and Samuel Sharpe, the Egyptologist. Mr. Bosanquet undertook to defray the cost of printing the *History of Ashurbanipal*, provided that the texts were accompanied by an interlinear transliteration and translation; and Birch promised to help Smith in matters of literary form. Sharpe, an authority in those days on ancient chronology, not only desired to see Smith's history of Babylonia published, but provided the money for printing it. And Birch, President of the newly-founded Society of Biblical Archæology, arranged for Smith to read a précis of it before the Society on June 6, 1871, and



Cylinder of Nabonidus, 555–538 B.C. Inscribed with a Prayer on Behalf of Belshazzar, His Son.

included it in the first volume of the *Transactions* of the Society, which appeared in 1872.

Now whilst these works were passing through the press, Smith found time to draw up a good list of Assyrian signs, which was published under the title of "The Phonetic Values of Cuneiform Characters," London, 1871, and was of great value to students. In the same year he succeeded in deciphering correctly the Cypriote inscriptions, and in showing that the system inaugurated by the Duc de Luynes and adopted by Röth was worthless. It is interesting to see that he employed the method followed by Rawlinson in dealing with the Persian text of the Bihistûn inscription. Smith chose a bilingual inscription in Cypriote and Phœnician; for his knowledge of Greek did not justify him in attempting to decipher one in Cypriote and Greek. He guessed which groups of Cypriote signs represented proper names, and applied to them the values of the equivalent groups of Phœnician letters. He identified E-da-li (Idalium) because, like Melekyathan, it had in it the letter L, and Ki-ti (Kitium) because, like Melekyathan, it contained the letter K, and so on. Birch suggested that the Cypriote equivalent for the Phœnician word for king (*melek*) would be "Basileus"; and Smith found it to be so. With phonetic values obtained in this way he identified the Cypriote forms of the Greek names Evagoras, Pythagoras, Stangoras, etc., and increased thereby his list of phonetic values. He succeeded in translating many passages of the inscription on the famous "Bronze Tablet of Idalium," and ultimately drew up a Cypriote Syllabary, containing the values of about fifty characters (see *Trans. Soc. Bibl. Arch.*, Vol. I. p. 129 ff.). This philological triumph was announced with such modesty that it attracted little notice; and Smith never received the full praise for his achievement that was his due.

Considerable progress was made in collecting and

copying the material for the fourth volume of Rawlinson's "Selections" in 1870 and 1871; but the work was brought practically to a standstill in 1872 through the discovery by Smith that a certain tablet from Nineveh contained an Assyrian account of the Deluge. He had suspected this for some time; but it was not until Ready had succeeded in cleaning the tablet that he could be sure. He copied and translated the text, and submitted the manuscript to Birch and Rawlinson, who agreed that he had made a truly great discovery, and decided that he should read a paper on the tablet before the Society of Biblical Archæology in the following December. Rawlinson made known the discovery to Oppert, who promptly came to London to see the tablet; and having convinced himself that the inscription had been correctly read, he returned to Paris, and obtained a grant from the French Government to enable him to come to London and publish it. He arrived in due course, and applied to Birch for the tablet; and when Birch failed to produce it, he made application to Rawlinson, stating that the French Government had commissioned him to publish it, and had provided him with the necessary funds for doing so. When Rawlinson, naturally, objected to hand over to him Smith's discovery to publish, Oppert took the line that all the tablets from Ḳuyûnjiḳ in the British Museum belonged to the French Government, because the Porte had given the site to the French in 1842, and that only the French should publish them. Oppert returned to France in dudgeon, and never forgave Smith for not handing over his copies to him for publication. His opinion of Smith's literary abilities was a low one; and two years after this event, when the fame of George Smith, as the "Discoverer of the Deluge Tablet," had reached the uttermost ends of the earth, and this was

pointed out to Oppert, he remarked, "Yes, Smith is a great excavator, and he writes like one."

Smith read his paper on the Deluge Tablet before the Society of Biblical Archæology on Dec. 3, 1872; and his discovery made a profound impression on his hearers. Sir Henry Rawlinson presided, and there were present on the platform Mr. W. E. Gladstone, Mr. Childers, Mr. Giffard (later Lord Halsbury), Dr. Birch, Mr. Emanuel Deutsch, Mr. J. Bonomi, Mr. J. W. Bosanquet, Canon Cook, Mr. Fox Talbot, Dean and Lady Augusta Stanley, the Rev. J. M. Rodwell and several distinguished scholars, theologians and archæologists. After the speeches and the long discussion which followed the reading of the paper, a resolution was passed unanimously in which the renewal of excavations at Ḳuyûnjiḳ was urged, and the Trustees of the British Museum and the Government were called upon to take steps to secure for the nation the missing portions of the Deluge Tablet which, presumably, were then lying among the ruins of Nineveh. The proprietors of the *Daily Telegraph*, realizing the importance of Smith's discovery and knowing that Governments generally regarded matters of the kind with leisurely benevolence, promptly and in true business-like fashion offered to spend 1000 guineas on excavations at Nineveh, provided that Smith was allowed to conduct the excavations, and to supply them from time to time with accounts of his journeys and discoveries. The Trustees accepted this generous offer, and acted with such promptitude that Smith left London on Jan. 23, 1873, with leave of absence for six months. He arrived at Môṣul on March 2, and as the Pâshâ of the district would not let him dig, he went by raft to Baghdâd, visited Babylon and Birs-i-Nimrûd, and took the opportunity of purchasing a collection of contract tablets. He returned to Môṣul on April 2, and,

as the Pâshâ was still obstructive, went and dug at Nimrûd for a month. On May 7 he began work at Ḳuyûnjiḳ; and a week later he had the extraordinarily good fortune to find a fragment which contained seventeen lines, hitherto wanting, of the first column of the Chaldean account of the Deluge. Rassam claims (*Asshur*, p. 53) that the fragment was found in one of his "abandoned trenches," and says in a footnote, "It has now been proved by Assyrian scholars that this fragment of the Assyrian account of the Deluge, found by Mr. George Smith, does not belong to the tablet I discovered in 1853." But this does not detract from the importance of Smith's discovery, because the fragment found by Smith gave us a portion of the Account of the Deluge which was wanting. That he recognized the character and contents of the text, and its true position in the Legend, is another proof of his genius. Early in June he closed down the works, and left Môṣul and arrived in England on July 19; but he could not get to work on his finds, because the Turkish Customs authorities at Alexandretta had confiscated his boxes of tablets, and as his guileless soul did not understand the use of *Bakshîsh*, he had to leave them behind. It required a strong protest to the Porte from the British Ambassador before the tablets were permitted to leave Turkey.

Now the *faramân*, or permit, under which Smith worked was only drawn for one year; and that year expired on the 9th or 10th of March, 1874. In order to get the fullest possible advantage from it, the Trustees decided to send Smith out to Nineveh, this time on their own account. The *Daily Telegraph* generously handed over the permit to them, and all the excavation plant; and Smith left London on Nov. 25, and arrived in Môṣul on Jan. 1, 1874. On this occasion he confined his work to Ḳuyûnjiḳ, and succeeded in recovering several hundred tablets and frag-

ments of tablets; but the quarrels among his workmen and the obstruction of the authorities compelled him to stop work early in March. And, worst of all, the Pâshâ claimed all duplicates on behalf of the Imperial Ottoman Museum in Constantinople; and Smith, still not understanding the use of *Bakshîsh*, and being ignorant of the cunning devices to which underpaid Pâshâs were obliged to resort when they wanted money, surrendered a considerable number of tablets, for the Pâshâ did not want fragments. The Pâshâ knew that Smith had bought on his first mission the large boundary-stone in the British Museum (90,850), and the stone lion-weight of Khian (B.M. 987, found at Abû Ḥabbah), and hundreds of contract tablets of the Persian and Parthian Periods, from the natives at Baghdâd, and regarded him as a "merchant of anticas," *i.e.*, a dealer, and therefore as one to be "squeezed." He knew too that the French Consul, M. Péretié, had sold to Smith for £70 in 1874 the memorial slab of Adad-Nirari I (now in the British Museum, No. 90,978) for which he had only paid 30 piastres (5*s.* or 6*s.*); and the Pâshâ wanted to take part in a trade that carried such profit with it. No salary had been paid him for many months and he wanted money. He expected Smith to buy back the tablets that he took from him; but Smith did not do so, and no one now knows what became of them. It is highly improbable that they ever reached Constantinople. The loss of these tablets is much to be regretted, and it might so easily have been avoided. Smith would not take the advice of the French Consul, who implored him to "make an arrangement" with the Pâshâ, who did not want the tablets and had no means by which to send them to Constantinople. But Smith never understood the native mind or native ways, and his inability to do so in the end cost him his life.

The collections of tablets brought home by Smith as the result of his two missions were considered to be of such great value that Rawlinson asked the Trustees to obtain a renewal of the *faramân*, and to send Smith out on a third mission. Application was made to the Porte by the Trustees through the Foreign Office during the summer of 1874, but with little result; and nothing more was done at Ḳuyûnjiḳ that year. Whilst waiting for the *faramân*, Smith filled up his official time by copying texts for publication in the fourth volume of Rawlinson's "Selection"; and he worked to such good purpose that it was published in 1875. In his private time he wrote an account of his travels and labours, which was published under the title of *Assyrian Discoveries*, in 1875; and in that same year he published the *Chaldean Account of Genesis*, London, 1875, 8vo., *The Assyrian Eponym Canon*, London, 1875, 8vo., and *Assyria*, London, 1875, 8vo., in the series *Ancient History from the Monuments*, issued by the S.P.C.K. About this time he prepared an edition of the *Inscriptions of Sennacherib*, and wrote a small *History of Babylonia* for the S.P.C.K.; but these were not published until after his death.

In March 1876 the *faramân* was issued by the Porte, but only after repeated applications in person by Smith, who had been waiting for it in Constantinople since the previous October. On his journey across the Continent he had met a Finn called Eneberg, an Assyriologist, who had been sent out by the Swedish Government to collect information about the sites of Babylon and Nineveh, and was himself a well-trained and advanced student of Semitic languages. Smith, finding that Eneberg possessed a good knowledge of the Semitic dialects akin to Assyrian, struck up a friendship with him; and the two men saw much of each other during the months they were in Constanti-

nople. Having agreed to travel together, they set out from Constantinople at the end of March 1876, and with difficulty made their way to Aleppo; there was cholera in the country, and the Turkish authorities made such regulations that travelling for private persons, and even caravans, was well-nigh impossible. Fighting broke out between some of the powerful tribes; and Smith could find no caravan-men who would risk their lives and beasts in taking him to Môṣul. But he found means of reaching Bir, or Bir Edjik, on the Euphrates; and having examined several ancient sites in the neighbourhood, he followed the course of the river and stopped and examined the ruins of Carchemish, which had already been identified by Skene. As it was hopeless to attempt to cross the desert on the left, or east, bank of the Euphrates, he and Eneberg proceeded by river to Baghdâd viâ Fallujah. Eneberg, who was wholly unfitted for the hard life of travelling in the desert, fell sick about this time; and as Smith had no supply of medicines, and was incapable of rendering even "first aid," he grew worse, and died. The truth is that no two men who were called upon by Fate to travel in Mesopotamia, considering what travel was in those days, were ever more unfitted for their work. Both were enthusiastic, excitable, and optimistic; and both were sadly chafed in mind by the petty daily annoyances of the natives, and by their difficulty in obtaining food and good sleeping accommodation. Smith had little Arabic, and Eneberg's Arabic was that of the Ḳur'ân, which does not help a man much in buying dates, sugar and bread, or in chaffering with greedy natives about the hire of camels and asses. The *cordons* round the villages prevented them from obtaining supplies by day; and anything smuggled out to them by night would have to be dearly paid for. Eneberg was not a robust man; and there is small wonder

that he succumbed to want of food and the hardships of travelling by night on a Euphrates boat in winter, when the cold is indescribable. The wonder is that Smith did not die also. Finding that their old customer was once more in Baghdâd, the natives brought to him collections of contract tablets which they had dug up at Abu Ḥabbah and other places in the neighbourhood; and Smith bought over two thousand of them. Rich was the founder of the "antica" trade on a small scale at Môṣul; and Smith established it on a large scale at Baghdâd. Babylonian tablets, like "mummies," had become "merchandise"; and the merchants who trafficked in them found means of exporting them to their agents in London, in spite of all the regulations of the Baghdâd Government to the contrary.

From Baghdâd Smith journeyed to Môṣul with the view of reopening the excavations at Ḳuyûnjiḳ. But when he arrived there, he found that the Pâshâ of Môṣul was trying to beat off the attacks of the men of Sinjâr, and to stop the raiding of sheep which was then going on among the great desert tribes; and as no native would work in the mound during the great heat of July, Smith was obliged to abandon all idea of making any further excavations that year. Weary and disappointed, he left Môṣul at the end of July, and set out for Aleppo. In spite of the warnings of the French Vice-Consul and of natives experienced in travelling, he insisted on marching during the day, which no native ever does in the summer; and he tried to live on the coarse hard bread-cakes of the country and dates, like the natives. I was told in Môṣul in 1888 that he was badly provisioned for his journey, and that he had no medicines with him. He struggled on, in spite of fatigue and sickness; but on August 16, when dysentery attacked him, he was obliged to stay in

the little village of Ikisji, about four days by caravan from Aleppo. The natives, fearing trouble with the Government if a "Frangi," or European, died in their village, sent a man on a swift camel to tell the British Consul, Mr. J. H. Skene, what had happened. Mr. Skene at once sent Dr. Parsons, a physician resident in Aleppo, to Ikisji; and he found Smith in a state of collapse. Dr. Parsons quickly constructed a sort of ambulance, and travelling by night brought him within two days' journey of Aleppo. Smith had lost consciousness (the natives said he was dead); and in this state Dr. Parsons brought him into the Consulate at Aleppo. Some say that he rallied a little; but in spite of all the care and attention shown to him by Dr. Parsons and Mr. and Mrs. Skene, he died on August 19, and was buried in the cemetery of the Levant Company. Thanks to the large amount of work helpful to students that Smith had done, his untimely death at the age of thirty-six did not greatly delay the progress of Assyriology, for several young men in England had begun to work at the subject; and fortunately Rawlinson was enabled to carry on his great undertaking of publishing new material for study. It may be noted in passing that Rawlinson was elected a Trustee of the British Museum in 1876; and thus, in addition to being the "Father of Assyriology," he became the official head and director of Assyriological studies in England.

It will be readily understood that Smith's absence from the British Museum on his three missions hampered work considerably in the Department of Oriental Antiquities; for at that time Birch had no other Assistant, and attending to the wants of students like Delitzsch and Strassmaier absorbed much of his time and interfered with his studies. Smith had been so much occupied with the copying of texts for publication that he had found it impossible to

attend as much as was desirable to the numbering and registration of the collections. He could easily find almost any tablet that was asked for, because he carried the arrangement of the collections—such as there was—in his mind; but at that time no one else could, and Birch sorely needed help. Whilst matters were thus, a young man, about twenty years of age, called W. St. Chad Boscawen (1855–1913), was introduced to Birch as a possible candidate for an Assistantship in his Department. Boscawen when a schoolboy at Rossall was deeply interested in the discoveries of Layard and Rawlinson, and had read everything he could get hold of on the subject. He had learned the cuneiform characters from the list published by Smith, and had read and re-read and actually transcribed the greater part of Smith's *History of Ashurbanipal*. Boscawen's father was a clergyman at Wrexham, and was in a position to supply his son with all the books he needed for his studies. Smith regarded young Boscawen as a promising Assyriologist; and with the help of Rawlinson and Professor Sayce he was made an Assistant of the First Class in Birch's Department (June 9, 1875).

Boscawen entered upon his duties with great zeal; and his knowledge of the literature of Assyriology generally made him a valuable acquisition to the Department. He occupied Smith's room and devoted himself to the examination of the collections which Smith had brought home as a result of his missions for the *Daily Telegraph*, or rather for Sir Edwin Arnold, and the Trustees. When the large collection of over 2000 contract tablets, which Smith purchased at Baghdâd for the Trustees in May and June 1874, reached England in October of that year, the task of examining and reporting upon their contents fell naturally to Boscawen. The interest in them displayed by the public was very great; and it was generally believed by

W. St. Chad Boscawen, Assistant in the Department of Oriental Antiquities, British Museum.

those who had read Mr. Mathison's letters in the *Daily Telegraph*, that Smith had read and arranged the tablets chronologically before he shipped them at Baghdâd, and that the translation of them would be a quick and comparatively easy matter. But such was not the case; for the tablets had been thrust into the boxes indiscriminately, and many of them were so much covered with mud as to be illegible. Boscawen worked at the tablets day by day for nearly a year, and found that the greater number of them were commercial documents belonging to a great firm of bankers and merchants, who flourished at Babylon in the seventh and following centuries before Christ. The head of the firm was one Egibi. The value of the datings of the tablets for chronological purposes was at once recognized; and Mr. J. W. Bosanquet commissioned Boscawen to write a detailed report of them for publication. Boscawen prepared an abstract of his Report which he read before the Society of Biblical Archæology in January 1877, and the complete Report was published in the *Transactions* (Vol. VI) of the Society, at Mr. Bosanquet's expense, under the title of *Babylonian Dated Tablets and the Canon of Ptolemy*. In the "Discussion" which took place after the reading of the paper, its importance was emphasized by Mr. J. W. Bosanquet, the Chevalier E. de Bunsen, Professor Seager, Professor Sayce, and Dr. Löwy.

Boscawen's reputation as an Assyriologist was made by his paper on the Egibi Tablets; and religious bodies of all denominations, believing that all the difficulties in the Book of Daniel were to be cleared away by their means, pressed him to lecture to them on the tablets. Editors of religious newspapers and magazines clamoured for articles; and journalists, seeking news of his "very latest discovery," waylaid him in the galleries of the Museum and begged for material for "copy." But though Boscawen was a

sturdy, well-built young man, his strength was not great; and soon after the reading of his paper in Jan. 1877, it became clear that he was suffering from overwork, worry and over-excitement. He sought relief from his studies, and found it in the society of a somewhat Bohemian set of literary men and newspaper correspondents, who frequented the Reading Room of the British Museum at that time, and with whom his easy-going, kindly disposition made him popular. But the occupations of his leisure hours accorded ill with the demands of his work, and he began to absent himself from the Museum. Every consideration was shown him by the authorities, but his absences became so frequent and so long that at length they were obliged to dispense with his services (July 7, 1877). After he left the Museum he devoted much time to lecturing and to writing articles on Oriental Archæology for newspapers, and reviews of books. His lectures were largely attended; and as he possessed a sympathetic voice and the power of clear and simple exposition, he was a good popularizer of Assyriology and Egyptology. Soon after he left the Museum, he determined to go to the East and examine the sites which had been excavated by Layard, Rawlinson and Rassam. His friends encouraged his idea; and Birch and others who had been associated with the Assyrian Exploration Fund, which was established in 1852, knowing that there was a small balance to the credit of the Fund at the bankers, managed to obtain possession of it, and despatched Boscawen to Mesopotamia. Exactly how far eastwards he went is not known; but having heard from the Italian Consul at Alexandretta of the trial excavations which Smith had made in the ruins at Jarabîs (identified by Skene and Smith with those of Carchemish), he went to Bîr Edjik on the Euphrates, and made his way down the river to Jarabîs and did some work there. It is

said that he wrote the account of Carchemish which was published in the weekly edition of *The Times* for Aug. 19, 1880; and there is no doubt that he wrote the description of the Hittite monuments at Carchemish which appeared in *The Graphic* for Dec. 11, 1880.

Owing either to his unbusinesslike habits, or to robbery by the natives, his funds came to an end when he was at Jarabîs; and it was only with the greatest difficulty and after suffering greatly from cold, hunger and thirst, that he arrived, ill and exhausted, at the British Consulate at Damascus. At first, as he tramped along with any small caravan he could join, he bartered his compass and personal ornaments for food. At a khân near Aleppo he sold his spare clothes for more food; and the night before he left the place, his coats and a pair of shoes were stolen from him. He acquired in some way a strong cudgel, such as shepherds carry, and a shepherd's sack, with which he covered his head and shoulders. But these led to a catastrophe; for as he was about to enter Aleppo late in the evening, a party of merchants, to whom he addressed questions in very halting Arabic, thought that he was a highway robber; and their servants fell upon him and beat him soundly, and tried to drag him into the town to get him thrown into prison. He escaped, however; but the encounter prevented him from going into the town and obtaining assistance from the British Consul, and he was obliged to struggle on to Damascus along one of the least-frequented caravan routes. A "Frangi," dressed in a ragged shirt and trousers and a native shepherd's sack and only one boot, and without money, would find travelling in that part of Turkey-in-Asia very difficult. When he made his way into Mr. Dickson's presence, and told his story, that kindly man gave him clothes and fed him, and at the earliest opportunity sent him back to England, at the expense of

the British Government, as a " distressed British subject." Some of the above particulars I heard from Boscawen himself, and some from Mr. Dickson, whose kindness to all travellers was proverbial in Syria.

Boscawen's contributions to Assyriology consisted of two books, viz. : *From Under the Dust of Ages*, London, 1886, and *The First of Empires*, London, 1903, and a series of articles printed in the publications of the Society of Biblical Archæology, the *Babylonian and Oriental Record*, etc. The result of his life's work is very disappointing, but yet it is hardly to be wondered at. He possessed a great deal of natural ability, and his progress in the study of cuneiform was extraordinarily rapid. He copied texts easily and well, and was able to grasp their general import quickly and with a considerable amount of accuracy. His language was fluent, and he had the faculty of clear expression ; even learned men listened to his expositions with pleasure, and his lectures and " Gallery rounds " in the British Museum attracted large audiences. But he could only work at the texts regularly for a limited period, and then only if he had a particular object in view. Official hours and duties and routine work in general he could not tolerate, and the means he adopted for avoiding such were disreputable. When he left the Museum friend after friend secured for him work of a lucrative character, but he lost position after position through his failure to keep his promises and to work to time. He would undertake to write an article or book or review, receive part payment on account, and then disappear for days and even a week at a time. He wore out all his friends, for when arrangements had been made for him to lecture in London or Scotland or elsewhere, and the audiences had bought their tickets and taken their seats, he would sometimes keep them waiting half an hour and sometimes not appear at all. He made

more money by his writings on Oriental Archæology than any other man in England, and yet he was never free from acute financial anxiety; his boon companions helped him to spend all he got, and his friends, taking advantage of his easy-going, pleasure-loving disposition, stripped him bare. During the last two years of his life the kindly wife of a publican who had known him as a young man used to manage to get hold of his earnings and feed him, and allow him so much a day for pocket money. Those of us who knew him well will ever regret the wasted abilities of the amiable and generous man who had only one enemy in the world—himself.

Rawlinson hoped at one time that Boscawen would have taken up Smith's work as a copier of texts for a fifth volume of his "Selection"; but when it became clear that this was impossible, he was obliged to seek elsewhere for an Assistant. With good fortune he found him in the person of Mr. Theophilus Goldridge Pinches, who, like George Smith, was a trained engraver and die-sinker, and who, because of his love for Assyriology, was willing to exchange the emoluments of a highly skilled craftsman for an exiguous official salary. Soon after Pinches entered the British Museum as an Assistant in Birch's Department, the results of the renewed excavations of Rassam at Ḳuyûnjiḳ, Abu Ḥabbah, Birs-i-Nimrûd and other sites began to arrive; and a vast amount of new material became available for publication. Among this were several texts written upon baked clay cylinders in archaic Babylonian characters, which were extremely difficult to copy. But the accurate eye and trained hand of Pinches succeeded in transcribing them; and they have made the fifth volume one of the most valuable of Rawlinson's series of "Selections." No other Assyriologist has had the good fortune to edit such important documents as the ten-sided prism of Ashurbanipal

(Rm. 1), the inscription of Agum-kakrime (about 1500 B.C.), the barrel-cylinder of Cyrus, the "Sun-god Tablet," or inscription of Nabu-apal-iddina, the barrel-cylinder of Antiochus, and the Charter of Ritti-Marduk granted by Nebuchadnezzar I (1170 B.C.). The other contents of the volume include bilingual lists and syllabaries, grammatical tablets, lists of kings, stars, gods, etc., mythological texts, letters, report tablets, contracts, with accurately drawn copies of the impressions on them made by the seals of witnesses, and many other important texts. The demand for these texts was so great that the Trustees decided not to delay their appearance until the whole set of seventy plates was ready for publication in one volume; and they issued Plates I–XXXV in 1880, and Plates XXXVI–LXX in 1884.

The discovery of the Deluge Tablet by George Smith stirred up great interest in Assyriology among scholars throughout the world; and one of its immediate results was a brisk demand for the fourth volume of Rawlinson's "Selection" published in 1875. The edition of 250 copies was exhausted; and scholars asked Rawlinson to prepare a new edition of the volume. When Part II of the fifth volume was finished and published, Pinches was instructed to make a new collation of the texts in the fourth volume, and to add the texts from the fragments which had been re-joined to the tablets since Smith's death. This was done efficiently; and because there was not space enough to include the additional texts on the plates as numbered in the old edition, it was decided to print the new edition in the small and beautifully clear types of Messrs. Harrison and Sons. In the new edition of the fourth volume, which appeared in 1890, ten plates were added, five withdrawn, and two incorporated with others. The demand for the fifth volume was so great and persistent that the Trustees published a complete reprint by photo-lithography in 1909.

The activities of Pinches were not exhausted by the copying of texts for Rawlinson's "Selection"; for quite early in his career he published the first part of a most useful work entitled "Texts in the Babylonian Wedge Writing, with a list of characters and their meanings," London, 1882. The script of the Babylonian tablets was very difficult to read, and this work afforded great help to students of it. A little later, Pinches made the drawings for Harrison's new fount of Babylonian type, which for accuracy and clearness is unrivalled. He has also published many important texts, with translations and commentaries, in the *Proceedings of the Society of Biblical Archæology*, *e. g.* The Capture of Babylon by Cyrus (1880), The Consonants R and L (1881), Assyrian Grammar (1882, 1884), The Falcon (1884), Babylonian Chronology and History (1884), Lament of the Daughter of Sin (1895), Assyriological Gleanings (1896, 1901), Babylonian Temples (1900), Gilgamesh and the Hero of the Flood (1903), Babylonian Gods of War (1906), Legend of Merodach (1908), The Goddess Ishtar (1909), Enlil and Ninlil (1911), Early Sumerian Month-names (1913), Ancestor-Worship (1915), Two Tablets of Historic Interest (1916); in the *Journal of the Royal Asiatic Society*, *e. g.* The Babylonian Chronicle (1887 and 1894), The New Version of the Creation-Story (1891), The Languages of the Early Inhabitants of Mesopotamia (1884), Hymns to Pap-due-garra (1924), The Divine Lovers Enlil and Ninlil (1919); in the *Transactions of the Victoria Institute*, *e. g.* Recent Discoveries (1893), Inscriptions and Records (1895–1896), Religious Ideas of the Babylonians (1895). He has also published a *Catalogue of the Sir Henry Peek Collection* (privately printed, London, 1882); translated Hymns to Tammuz from tablets at Owens College; translated the texts on the *Bronze Gates of Shalmaneser* from Tall Balâwât; and contributed trans-

lations to *Records of the Past*, New Series, and the *Babylonian and Oriental Record*. His excellent *Guides* to the Ḳuyûnjiḳ Gallery and the Nimrûd Central Saloon in the British Museum have been out of print for many years. For his contributions to the *Trans. Soc. Bibl. Arch.*, see the Index published by the Society, and the Bibliographies published by Bezold in *Zeit. für Ass.*, 1888 f.

The publication of the five volumes of Rawlinson's *Selection from the Cuneiform Inscriptions of Western Asia* occupied a period of about twenty-four years. In the preceding paragraphs an attempt has been made to describe his plan of work and the share which he and his three Assistants took in its execution; and it will be well here to indicate briefly the amount of new material which he placed in the hands of students of Assyriology. The five volumes contain three hundred and fifty large folio plates of cuneiform texts in the Sumerian, Akkadian (*i.e.* Babylonian) and Assyrian languages. Among the texts are specimens of inscriptions dealing with almost every branch of learning known to the nations who used the cuneiform writing, history, chronology, historical legends, grammar, lexicography, religion, magic, astronomy, astrology, mathematics, law, epistolography, etc.; and taken as a whole they form the main foundation of the science of Assyriology. The texts are edited from bas-reliefs, memorial stelæ, boundary-stones, baked clay prisms and cylinders, baked and unbaked clay tablets, and paper squeezes. The total number of inscriptions published in the five volumes is about nine hundred and sixty-seven, and the lines of text run into thousands. The volumes were edited by one and the same man, Rawlinson, whose one aim was to make available to scholars and students all the material possible as soon as possible. He received no remuneration for his invaluable services. Norris's only payment for his copies

was his personal satisfaction in making discoveries; and George Smith and Pinches each worked for some years for a salary that was smaller than that then received by a master carpenter or master mason. The Trustees also managed, without any special grant from the Government, to provide the funds necessary for the publication of the great work; and the debt of gratitude owing to them by Assyriologists all over the world is incalculable.

XI.—THE RENEWAL OF EXCAVATIONS BY THE BRITISH MUSEUM IN ASSYRIA AND BABYLONIA

The Babylonian tablets and other antiquities purchased by Smith in Baghdâd opened up new fields of Assyriological research; and Rawlinson was convinced that the area of the Trustees' excavations must be enlarged, and must include the sites from which the tablets had come. The numerous fragments of tablets which Smith had obtained at Ḳuyûnjiḳ, by digging through the trenches that Layard and Rassam had abandoned, proved that there were still many more tablets and fragments to be got out of the mounds there, and public scientific opinion demanded that the task of "clearing out Nineveh" should not cease because death had removed Smith from the work. But it was felt that excavation in Assyria was a "whole-time job," and that it must be undertaken by a man who had experience, and who understood both the people of Western Asia and the principal languages of the country, *i.e.* Arabic and Turkish. The *faramâns* under which Smith worked were so full of rules and regulations and stipulations, and threats of penalties and fines for non-compliance, that it is impossible to understand how any British Ambassador in Constantinople could have accepted them. The truth is that the *faramâns* issued to Smith were intended to be

prohibitive of work and therefore of success; and it speaks volumes for his dogged determination, and the astuteness of the wily dealers of Baghdâd, that he was able to bring home as much as he did.

When the proprietors of the *Daily Telegraph* were discussing the proposed mission of Smith, Sir Edwin Arnold consulted Rassam about the matter; and he was anxious that Rassam should be sent instead of Smith. But, according to Rassam (*Asshur*, p. 53), when he announced this fact to the proprietors, he found that they had already committed themselves to the sending out of Smith; and therefore Rassam's offer to go was not accepted. On the death of Smith there was no other qualified person to send to Assyria except Rassam; and the Trustees of the British Museum despatched him to Constantinople to get a *faramân* early in 1877. For various reasons his efforts were not successful; and having waited there three and a half months, he returned to England. When Sir Henry Elliot, the British Ambassador to the Porte, left Constantinople, Sir Henry Layard was appointed to succeed him; and the new special Ambassador set out for the East to take up his duties in April 1877. A month or two later, Layard succeeded in obtaining a satisfactory *faramân* from His Majesty the Sultân; and Rassam, who had returned to Constantinople in June 1877, set out at once for Môṣul to reopen the excavations at Ḳuyûnjiḳ. He passed through Aleppo and saw the British Consul, Mr. J. H. Skene, who told him that he had succeeded in convincing George Smith that the ruins at Jarabîs marked the site of the old Hittite city of Carchemish. On his way via Wân (Vân), he visited the village of Tirmait, where he saw the remains of an inscribed black basalt obelisk, partly buried in the ground, and noted the two cuneiform inscriptions called "Ilân Dashlarî" at Ardish. Near the

church of Dâra Killisa at Wân he found a mound containing remains of a building of Assyrian origin; but as his *faramân* did not include the Wân district, he was not able to excavate it. In many of the churches which he visited he saw cuneiform inscriptions built into the walls. When Rassam arrived at Môṣul he was unable to begin work, because his *faramân* had not arrived; and on Dec. 10 he left for Baghdâd. From Baghdâd he visited the very ancient town of Karkûk, near which quite recently the Sumerian statuette of a woman acquired by the British Museum in 1924 was found, and Irbîl, the Arbela of classical writers. On his return to Môṣul he found that the Porte had instructed the Pâshâ to allow him to begin work; and early in Jan. 1878 he began work at Ḳuyûnjiḳ.

Having set men to clear out the old trenches and to open new ones, he rode about the country seeking new sites for excavations. During the previous year (1877) some large pieces of bronze plates with figures of soldiers in relief had been shown to him, and he had been told that they came from the neighbourhood of Môṣul. On making enquiries, the natives told him that they had been found by a native when digging near a mound at Balâwât, about twenty miles east of Môṣul. Thither he went, and after many difficulties with the natives was shown the place where the pieces of bronze plates were said to have been found. He set his men to work, and in a short time they uncovered an object "lying on its face and spread like a gigantic hat-rack" (*Asshur*, p. 207). This object proved to be a gate, with double leaves, lying on its side, with the lower portion sunk in the ground to a depth of about 15 feet. Each leaf had a thick bronze pivot and seven bronze panels with designs in *repoussé* work, each about 8 feet long. All the woodwork was rotten, and crumbled to dust. The bronze plates were removed with difficulty, and carefully packed

and sent to the British Museum, where they were cleaned and mounted by Mr. Ready and are now exhibited as the Bronze Gates of Shalmaneser III (859–824 B.C.) and his father Ashurnaṣirpal II (883–859 B.C.). I visited Tall Balâwât with Mr. Nimrûd Rassam in the winter of 1890–1891, but none of the natives had ever heard of the discovery of the bronze plates; Mr. Rassam questioned them closely, and was convinced that someone had made a mistake. At Ḳuyûnjiḳ Rassam cleared out many chambers in the palaces of Sennacherib and Ashurbanipal, and found many tablets and the splendid baked clay prism of Ashurbanipal (Rm. 1). He left Môṣul in May 1878, and arrived in London on July 12.

Through Layard the Trustees obtained a new *faramân*, which enabled them to carry on excavations at more than one site at the same time; and in October 1878 Rassam again took the road to the East. On his arrival at Môṣul he re-started the works at Ḳuyûnjiḳ and Nimrûd, and then opened up new works at Kal'ah Sharḳât (the city of Asshur), where among other interesting things he found the curious memorial object of Arik-dên-ilu (1325–1310 B.C.), now in the British Museum (No. 91,059). As the new *faramân* gave Rassam permission to dig in the Walayâts (*i.e.* Provinces) of Môṣul-Baghdâd, Aleppo and Wân, he left Assyria in Jan. 1879 and went to Baghdâd, and then to Ḥillah. The large collections of tablets which Smith purchased in 1876 were known to come from the neighbourhood of Ḥillah, and thither Rassam went, to obtain what was to be had and to excavate. At Maḥmudîyah, about twenty miles south of Baghdâd, he heard that inscribed bricks had been found at Dêr and Abû Ḥabbah, a few miles further to the south; and he went and examined both mounds. He thought the mound at Dêr unimportant; and that is easily understood when we remember that Rassam was always wanting to find

the ruins of large and massive buildings, and colossal statues, lions and bulls. He returned to Abû Ḥabbah, and, having examined the mound and talked to the natives, determined to excavate there. He found the remains of a very large mass of buildings, and counted some 300 chambers, which suggests that he had discovered the store-rooms of the ancient city of which they formed a part. This city was undoubtedly Sippar. He cleared out about 170 of the chambers; but as the Porte refused to renew his *faramân*, he was obliged to stop work. I visited the site in 1888 and 1891 and found the natives digging in the chambers which Rassam had left untouched, under the excuse that they were digging for bricks, and carrying away the dust to spread over their fields for top-dressing. On going through the chambers I saw the remains of great numbers of large jars, which resembled the *zîr*, or waterpot; and the natives told me that when they opened them, they found them full of soft unbaked inscribed tablets. In other chambers they discovered small sealed pots, which contained large inscribed baked tablets about 4 inches long. In one chamber they found rows of larger tablets arranged on stone shelves; and to these dockets or seals were attached by means of cord made of some kind of vegetable fibre.

The tablets bought by Smith were found at Abû Ḥabbah, and from that place came also all the collections of tablets which were sold to the Americans and those that were exported to Europe by the Jewish and Armenian merchants in Baghdâd. Smith had shown the natives that tablets were worth much money; and it was to the interest of the finders of the tablets, and the dealers, and the Turkish officials who received "good bakshîsh" for allowing anticas to be exported contrary to the law, to develop the trade as much as possible. It was the combined efforts of these three classes of people that brought about the stoppage of Rassam's

work, and caused all the opposition and annoyance from which subsequent excavators had to suffer. Rassam says (*Trans. Soc. Bibl. Arch.*, Vol. VIII., p. 177) that between 40,000 and 50,000 tablets were found at Abû Ḥabbah, but, judging by the enormous collections which I saw in Baghdâd and Ḥillah and other places, the number must have been nearer 130,000. Many thousands of tablets were destroyed by the natives who, like Mr. Doubleday of the British Museum, tried to harden the unbaked tablets by baking them; the result of the baking was to make the inscribed surfaces on both sides flake off and crumble into dust. This baking was carried out by placing the tablets in the fire, and the destruction of their surfaces was bound to follow. The method now followed in all Museums is to apply heat to them gradually, without the direct application of fire; and the result is satisfactory. The chief temple of Abû Ḥabbah was dedicated to the Sun-god, and there seems to have been a *zikkurat* attached to it. For descriptions of the chief objects found there, see Pinches, *Trans. Soc. Bibl. Arch.*, Vol. VIII., pp. 164–171.

From Abû Ḥabbah Rassam went to Babylon and was rewarded by finding at Jumjumah the broken baked clay cylinder inscribed with a copy of the official account of the capture of Babylon by Cyrus (now in the British Museum, No. 90,920). At Birs-i-Nimrûd Rassam found many tablets in the ruins of a building where the natives had been digging before his arrival; and opposite Ibrâhîm al-Khalîl he discovered the remains of a palace of Nebuchadnezzar II. He also made trial excavations at Tall Ibrâhîm, which some say marks the site of Kûthah. In February 1879 Rassam went to Tall Loh on the Shaṭṭ-al-Ḥayy; but finding that the district round about was not any longer included in the Pâshâlik, or Province, of Baghdâd, he could not make any authorized excavations there. But when he heard that

M. de Sarzec, the French Vice-Consul of Baṣrah, had excavated there without a *faramân*, he thought that he might do the same. He collected men and set to work on the largest of the mounds, and in a few hours found the remains of a temple and two inscribed gate-sockets, and in a grave close by a number of unbaked tablets were unearthed. At the depth of about two feet he came across large numbers of inscribed memorial cones, and many red stone inscribed mace-heads, which he calls "weights" (*Asshur*, p. 277); but after digging for three days, because of the fighting that broke out between his workmen and the neighbouring Arabs, he stopped the work and returned to Baghdâd. He visited Ḳal'ah Sharḳât on his way back to Môṣul, and found that nothing of interest had been discovered during his absence. The same was the case both at Ḳuyûnjiḳ and Nimrûd. He had long wished to excavate a part of the famous mound on which the tomb of the Prophet Jonah stands; and, after much consultation with men of influence, he bought some houses there, so that he might have the right of exploring the ground beneath them. But as soon as he began to drive tunnels under the houses, the authorities raised objections of every kind; and their opposition was so strong that in the end Rassam thought that he had better close down his work and return to England, where he arrived in June 1879.

In April 1880 Rassam again set out for the East. He arrived at Babylon in May, when the votive bronze doorstep of Nebuchadnezzar was discovered. The works at Babylon itself had been carried on by his agents, and a number of inscribed tablets were found in the various mounds there. They rediscovered the wells or shafts which had been excavated by Beauchamps in 1782, and which Koldewey believed to have been used for the machinery that he supposed to have existed for watering the Hanging Gardens, though

he obtained no evidence that throws any light on their use. In June Rassam left Baghdâd for Môṣul to continue his work at Nabi Yûnis; but finding this impossible, he set his nephew Nimrûd Rassam over the excavations at Ḳuyûnjiḳ, and on July 15th started for Wân, where he arrived on the 29th. He set men to work at once on the mound near the "Valley Church," where Dr. Reynolds of the American Mission at Wân had begun to dig on his behalf. Dr. Reynolds found bronze shields embossed with figures of lions, bulls, and elaborate decorations, ivory figures, parts of a bronze throne, and a large number of miscellaneous objects, which are now in the British Museum. As Captain Clayton, the British Resident at Wân, undertook to superintend the excavations, Rassam left Wân early in September, and arrived at Môṣul (Sept. 27, 1880). Returning to Baghdâd in November, he went to Babylon and inspected the works, and then went to Abû Ḥabbah and began to dig near the base of the *zikkurat*. In a short time he was rewarded by the discovery of the famous "Sun-god Tablet," and the coffer in which it was buried. He arrived in England in the course of the spring, but set out again for the East in March 1882, and renewed his work at Abû Ḥabbah, where he found "60,000 or 70,000" unbaked tablets (*Asshur*, p. 419); and he continued to dig there until the end of July 1882, when his excavations for the British Museum ceased. He appointed agents with monthly salaries to watch the sites of the Trustees' excavations until his *faramân* could be renewed, and returned to England towards the close of the year.

As soon as the dealers and officials in Baghdâd knew that Rassam was out of the country they began to make excavations on their own account. They employed the workmen who had been employed by Rassam; and in a very short time the Jews of Ḥillah, working in collusion with the Jews

and Armenians of Baghdâd, began to export large collections of tablets and other antiquities to London and America. The British Museum bought several collections, and as there was keen competition in Paris and America prices began to soar, and in a short time contract tablets of Nebuchadnezzar II, for which the finders were paid five piastres each in Baghdâd, were fetching £4 each in London. It was, of course, quite hopeless to stop the trade in anticas at Baghdâd; and as long as Museums found it cheaper to buy tablets than to dig for them, naturally their Directors bought. But presently Rawlinson and others found out, by reading the tablets which the British Museum bought in the open market, that several of them came from the sites on which Rassam had worked and which the agents appointed by him were being paid salaries to watch. Moreover, information reached the Museum from Prof. Sachau and others that German agents of the Berlin Museum had travelled via Môṣul to Baghdâd, and had bought collections of Babylonian tablets from the watchmen paid by the Trustees. It was obvious that this illicit dealing in anticas ought, if possible, to be stopped, and that, if this was impossible, steps should be taken to secure the tablets, excavated clandestinely, for the British Museum, in order to prevent their being scattered all over the world. Rawlinson pointed out that it was quite impossible to stop the illicit trade in anticas, and also that the watchmen appointed by Rassam were powerless to stop natives digging in the sites already worked for the Trustees, because they were not appointed by the Turkish Government. Moreover, the period for which Rassam's *faramân* was effective had expired in 1882.

In October 1887 I was instructed to extend my operations from Egypt (my mission thither having been already sanctioned earlier in the year) to Baghdâd, to consult with Colonel W. Tweedie, the British Consul-General, to visit

all the sites where excavations had been made for the British Museum, and to report on the same. In an official conversation just before leaving London, Rawlinson told me that I was to spare no effort to acquire tablets. His words were to this effect : There is a leakage of tablets from our sites ; either find the source of that leakage and stop it, or secure for the Museum what comes from the leakage. Of course you must pay for the tablets you get hold of ; but that cannot be helped. The money must be found and will be found. The vitally important thing is to secure the tablets ; for, as compared with tablets, money has no value ; money can be replaced, but tablets cannot, and once gone into the Museums of other countries, they are, so far as the British Museum is concerned, gone for ever. I carefully wrote down these very definite and other less definite instructions ; and in February 1888 I arrived in Baghdâd.

Rassam had given me introductions to his watchmen and others, and Rawlinson had given me letters to Messrs. Lynch Bros., and to certain Jewish firms in Baghdâd ; and within a week I found that the exportation of tablets was an important and profitable business in Baghdâd and Baṣrah. Mr. Dawud Thômâ, Rassam's overseer, and his brothers ʿAbd al-Karîm and ʿAbd al-Aḥad possessed very large collections of tablets from Abû Ḥabbah ; and when I had acquired these, Dawud Thômâ took me to the houses of his friends, where I found other large collections of tablets from Abû Ḥabbah and some sites near the Birs-i-Nimrûd. Rassam's overseer and some of his watchmen sold to me several collections of valuable tablets and signed the receipts for the moneys, which were paid to them by Messrs. Lynch Bros., with their full names, and saw nothing unusual or irregular in the proceeding. For further details see my *Nile and Tigris*, London, 1920. From Baghdâd I visited all the sites where Rassam had carried on excavations,

Abû Ḥabbah, Tall Ibrâhîm, Birs-i-Nimrûd, Ibrâhîm al-Khalîl, Jumjumah and other places near Babylon, and Dailam. On many of the sites men were digging for tablets openly by daylight; no watchmen were there, and had they been there, they could not have prevented digging. At every place I visited I purchased good tablets at the rate of from three to five piastres each. The Turkish governor of Ḥillah told me that Abû Ḥabbah and neighbouring mounds were situated on lands that were the personal property of the Sultân 'Abd-al-Ḥamîd Khân, and that His Majesty and the Baghdâd Government greatly resented the appointment of watchmen by Rassam on the Crown Domains. He had seen the *faramân* under which Rassam worked; and he stated that it was similar in every respect to that given to mining engineers when prospecting for minerals and special kinds of stone. The Sulṭân had given permission for excavations to be made on his property as a special favour to Sir Henry Layard, then the British Ambassador to the Porte; but his officials had drawn up the *faramân* in accordance with the regulations and stipulations usually imposed on mining engineers. It was the evasion of these regulations by the men whom Rassam left in charge of the works, when he was riding about the country, that provoked the opposition on the part of the Baghdâd Government which ultimately brought Rassam's operations to a standstill.

Whilst I was wandering about Musayyib one evening, a native brought me several fine "case-tablets," *i.e.* inscribed tablets encased in clay envelopes, inscribed with a duplicate of the text on the tablet, and bearing impressions of many seal-cylinders, which he wanted to sell. They were the finest of their kind that I had ever seen; and with difficulty I drew from him the fact that they came from Dêr, a site about twenty miles south of Baghdâd. He said there were ruins of walls there in which the openings where gates had been could

be seen, and that in one corner there were several chambers full of such tablets. This seemed incredible; but I rode to the ruins the following day, and I saw enough to convince me that the site was worth excavating. At the depth of three feet from the surface the natives with me showed me fine solid walls built of large rectangular Babylonian bricks about 16 inches square; but when I pressed to see the chambers about which the native had told me the previous day, they said that men were watching them from a distance, and they were afraid of getting into trouble with the authorities in Baghdâd.

In the summer of 1888 the Trustees decided to renew their excavations at Ḳuyûnjiḳ; and in September I was sent to Constantinople to make application, in person, for a *faramân*. O. Ḥamdî Bey, Director of the Imperial Ottoman Museum, made a special arrangement whereby I was to keep all the fragments of inscribed tablets that might be found; and in return the Trustees presented to His Majesty ʿAbd al-Ḥamîd Khân a set of their publications. After I had waited six weeks in Constantinople and made daily application to the Porte and to the Minister of Public Instruction for the *faramân*, Sir William White asked the Sultân, as a personal favour, to permit me to excavate at Ḳuyûnjiḳ. This request was promptly granted; and I was despatched to Assyria forthwith. When I arrived at Môṣul and had visited the mounds of Ḳuyûnjiḳ, it seemed to me that to make any systematic clearance of the *débris* and to excavate the northern gateways and walls would cost a very large sum of money, and occupy years. I therefore decided to work on a very modest scale, and to dig through the trenches that had been made by Layard, Rassam, Loftus and Smith. Some hundreds of men were set to work, and almost every day we recovered two to six inscribed fragments. An inspector was sent from Stambûl to watch the work on behalf of the

Turkish Government; and the British Museum had to pay all his travelling expenses and his salary of £T20 per month. According to the *faramân* I was bound to pack up and transport to Constantinople at my expense all the antiquities found: and when this was done, the British Museum was to have whatever the Minister of Public Instruction was pleased to grant. But, relying on the agreement made with Hamdî Bey, Mr. Nimrûd Rassam managed to gain possession of about 310 tablets and fragments of tablets that had been found; and these in due course arrived at the British Museum. I collected some tons of large objects, including a fine stone circular altar from Khorsabad, and transported them to Baṣrah, en route for Constantinople; but the inspector and the authorities quarrelled, and the governor of Baṣrah would not allow the antiquities to leave his Sarai. Nimrûd Rassam undertook to continue the digging through of the trenches at Ḳuyûnjiḳ, and I went to Baghdâd by raft, and having acquired several collections of Babylonian tablets, returned to England in May 1889.

Soon afterwards Rawlinson advised the Trustees to apply for a *faramân* to excavate Dêr, and after more than a year's negotiations it was granted. On my way to Môṣul, and whilst there, I visited many of the ancient monasteries, and collected from them and from private individuals a considerable number of Syriac and Arabic manuscripts; for a list of them, see my *Nile and Tigris*, Vol. II, pp. 295 ff. With these and about 240 tablets from Ḳuyunjiḳ I travelled by raft to Baghdâd to begin work at Dêr. On my arrival there, I found that, when it became known in Baghdâd some months before that the British Museum wanted to excavate Dêr, the Pâshâ had commissioned certain natives to go there and dig on his behalf. They did so, and found two chambers full of tablets, which they carried into Baghdâd; and they were sold there to the

dealers. Most of them were "case-tablets," and all belonged to the period of about 2000 B.C. But there was a third chamber at Dêr, built into the corner of a large room; and, though known to the native who was in charge of the Pâshâ's excavations, he did not reveal its existence to his subordinates, but kept it secret, in order that he might sell his knowledge to me. When the *débris* was cleared from the entrance, which was in the roof, we saw that the chamber contained many large jars, with coverings fixed in position with bitumen. Some jars were full of tablets, and others only half-full; and three were empty. Each jar contained the contracts and business documents probably of one family, like the modern black tin boxes seen in solicitors' offices. The jars broke when attempts were made to move them; but every tablet in them was secured unbroken. There were nearly 3000 tablets in that chamber, which was a comparatively small one; and judging by the size of the collections which I saw in Baghdâd, the total number of tablets found in the three chambers at Dêr cannot have been less than 15,000. I secured about 2300 of the largest and best of them, and shipped them to London in batches, as opportunity offered, before I left Baghdâd, and I arranged with the dealers to despatch the rest, a few hundreds at a time, to the British Museum; and in due course all arrived there, and were purchased. The site now called "Dêr" was occupied by the Babylonians at a very early period; and a town with three or four gates stood there before 2500 B.C. On one side of it ran a large canal. Assyriologists now know that the old name of the town was "Sippar Yakhruru," or "Sippar Aruru"; and therefore we must abandon the theory formerly held that Dêr marked the site of Akkad, or Agade. The ruins at Abû Ḥabbah contain the remains of the city of the Sun-god Sippar; and one of the principal

buildings in it was the large house, which was probably attached to the temple of Shamash, in which lived the priestesses and other women who were in the service of the god. Sippar Yakhruru may have been a kind of self-contained suburb of Sippar, and the large and valuable collection of early Babylonian tablets found there attests both its antiquity and its importance. It is possible that in the early centuries of the Christian era some large monastery or nunnery flourished there; at least the name "Dêr" suggests this.

During the next twelve years (1891–1903) the staff at the British Museum were engaged in arranging and in digesting the contents of the mass of material which had been pouring in from Babylonia; and as a result, the Trustees decided to renew excavations at Ḳuyûnjiḳ. A *faramân* drawn up on the usual lines was obtained with difficulty, and the late Mr. L. W. King, Assistant in the Department of Egyptian and Assyrian Antiquities, was sent out. He began work on March 3, 1903, and went on steadily until July 18, by which time he had excavated the temple of Nabû down to its foundations. He was joined by another Assistant from the Museum, Mr. R. Campbell Thompson, who arrived in Môṣul on Feb. 29, 1904, and took sole charge of the works from June 22 to Feb. 11, 1905, when the excavations were finally closed by the Trustees. From first to last, *i.e.* between 1846 and 1905, a great and splendid work of excavation has been carried out at Ḳuyûnjiḳ, one which reflects great credit on the ability, energy, perseverance and self-denial of Layard, Rassam, Ross, Loftus, Smith, King and Thompson; for it is a fine achievement of British Assyriologists. It is much to be regretted that this work at Ḳuyûnjiḳ has been spoken of in such disparaging terms by Messrs. Breasted and Luckenbill, who, it is said, visited Môṣul soon after the

Armistice with the view of purchasing antiquities. These gentlemen were of opinion that no "scientific digging" had been done at Ḳuyûnjiḳ, as they went over or surveyed the mounds; but in the printed prospectus in which they have published their opinion they do not, unfortunately, tell us what they mean by "scientific digging." More travellers than one who have seen the site of the American excavations at Nippur have failed to see there any exhibition of scientific digging. As one of the Trustees' servants, whose duty it was to play a modest part in digging at Ḳuyûnjiḳ for tablets, it is, naturally, not for me to proclaim that the digging carried out by my colleagues or by myself was "scientific," or to dispute the accuracy of the criticism of these distinguished gentlemen. But it may be pointed out that whether the methods of digging employed by the British Museum officials are "scientific" or not, the authorities of the Museum of the University of Pennsylvania at Philadelphia have joined forces with the Trustees of the British Museum, and are at this time (1924–1925) engaged in excavating, together with them, the ruins of Muḳayyar, or "Ur of the Chaldees." It may be further pointed out that whatever knowledge of Assyriology American professors possess, they owe it solely to the results obtained by British excavators, whose methods of digging were not, according to our critics, "scientific." And but for the efforts of these excavators, Messrs. Breasted and Luckenbill would not have been able to acquire at Môṣul the baked clay prism of Sennacherib which the latter has published, and the value of which he overestimates so greatly.

In 1918 the Trustees of the British Museum decided to take advantage of the British military occupation of Lower Babylonia, and to renew excavations at Muḳayyar, or "Ur of the Chaldees," and at Abû Shaḥrên, the ruins of which

mark the site of Eridu, where, according to ancient native tradition, Babylonian civilization began. They arranged with the military authorities that Capt. R. Campbell Thompson, formerly an Assistant in the British Museum, and employed at Baghdâd in the Intelligence Dept. of the Army, should be allowed to conduct their excavations, and so continue the work on the sites that had been examined and partly excavated by Loftus and Taylor between 1850 and 1854, and by the American Mission in 1900. Thereupon Thompson went to Muḳayyar and, after a careful examination of the extensive ruins, devoted all his energies to the excavation of Abû Shaḥrên, where he discovered a number of very important objects dating from the early Sumerian period and the period which immediately preceded it. His results are described by himself in *Archæologia*, Vol. LXX. When he returned to England in 1919, the Trustees sent out Dr. H. R. Hall to continue his work. Hall carried out extensive excavations at Muḳayyar and Abû Shaḥrên; and whilst these were in progress he was fortunate enough to come across the remarkable site of Tall al-'Ubêd, where he found several series of antiquities hitherto unknown to archæologists. These belong to the early Sumerian Period, say 3300 B.C. He was unable, for want of time, to finish his excavations at Abû Shaḥrên and Tall al-'Ubêd, and in 1922 Mr. C. L. Woolley was sent to Muḳayyar to continue the work on that extensive site, and to finish the excavation of Tall al-'Ubêd and Abû Shaḥrên. See his Reports in the *Antiquaries Journal*, 1923 and 1924. During the course of his work in the winters of 1922–1923 and 1923–1924 Woolley has recovered from Tall al-'Ubêd objects of such value from every possible archæological point of view that Hall's discovery of the little mound (it is only about 150 feet long) must be regarded as one of the most important yet made in Babylonia. Not

only has it supplied us with rich early material, but it has told archæologists very many things that they did not know. Some of the pottery is probably prehistoric, and must date from a period anterior to the first dynasty of Ur, 3300 B.C.; and its similarity to that found at Shûsh (Susa) by J. de Morgan and Loftus makes it certain that the predecessors of the Sumerians in Lower Babylonia were immigrants from the north or north-east. The makers of this pottery seem to have been ignorant of the use of metal.

No other site has supplied such objects as the great lion-heads of copper with inlaid stone eyes and teeth of shell, the inlaid bulls, the massive copper relief of Imgig, the lion-eagle grasping two stags, the inscribed stone statue of the official Kurlil (?), the pillars inlaid with mother-of-pearl, the copper bulls and shell and limestone reliefs set in copper frames; and incidentally, it has given us one of the OLDEST KNOWN CUNEIFORM INSCRIPTIONS, which, according to some authorities, was written as early as B.C. 3300. This inscription is of great value historically; for the name of one of the kings mentioned in it is found in King Lists that were supposed by some Assyriologists to be mythological. The question, "What building was it of which Hall excavated the remains at Tall al-'Ubêd?" is answered by the inscription in very archaic line-characters on a steatite foundation tablet discovered there, which Mr. C. J. GADD of the British Museum translates thus: "A-anni-padda, king of Ur, son of Mes-anni-padda, king of Ur, has built a temple to the goddess Nin-har-sag." This is probably the oldest Sumerian temple known to us. With this tablet there was found a gold scaraboid inscribed "A-ANNI-PADDA, king of Ur." It is pierced throughout its length, and was worn or carried on a string and used as a seal; and it is probable that the inscribed cylinder-seal which was rolled on clay tablets at a later period is a modification of such flat seals.

That A-anni-padda's gold seal is in the form of a scaraboid is noteworthy; for, like the scarab in Egypt, it was worn by its owner, and often served both as an amulet and as a seal. The objects discovered by Hall are exhibited in the British Museum, and a summary description of them will be found in the official *Guide*, with illustrations (pp. 57 ff.). For his own fuller accounts of them, see the *Proceedings* of the Society of Antiquaries (Dec. 1919); *Journal of Egyptian Archæology*, Oct. 1922 and Oct. 1923; and the *Centenary Supplement* of the Royal Asiatic Society, Oct. 1924. His book *A Season's Work at Tall al-'Ubêd* is expected to be ready this year. Mr. C. L. Woolley has published an account of his work at Ur in the *Antiquaries Journal*, No. IV, 1923; and a further Report appeared in the same *Journal*, No. I, 1924. See also articles by him in the *Museum Journal* of the University of Pennsylvania for March 1924 and March 1925, letters in *The Times*, Jan. 14, Feb. 4, 1925, etc., and an article by Léon Legrain in the September number of the *Museum Journal*.

XII.—THE CLEANING AND REPAIR OF THE INSCRIBED TABLETS FROM ASSYRIA AND BABYLONIA

The tablets and smaller antiquities excavated by Layard, Rassam, Loftus, Taylor and Rawlinson arrived at the British Museum during the years 1850–1855; and the greater number of them had suffered greatly in transit from Mesopotamia to England via Bombay. The large sculptures and bas-reliefs had been packed in mats and strong iron-clamped wooden cases, and therefore arrived in a good state of preservation, but the tablets were tied up loosely in native reed baskets and placed in boxes without further packing. All were covered with a thick coating of dust and earth, which was easily removed by careful brushing; but there

were many hundreds with large patches of a crystalline deposit adhering to their surfaces, and these rendered it impossible to see the inscriptions beneath them. The tablets from Nineveh were, like the great historical prisms and cylinders from Ḳuyûnjiḳ, Ḳal'ah Sharḳât and Babylon, made of baked clay, but many of those that came from Warka, Sankarah and other sites in Lower Babylonia had only been sun-dried. Many of the latter also had patches of a crystalline deposit adhering to them; and when an attempt was made to remove them, the tablet crumbled in the hand, leaving the deposit intact. Sometimes the patches of crystals came away from the tablets easily; but portions of the surfaces of the tablets came away with them, and the inscriptions were mutilated. Many of the unbaked tablets had broken as they were being taken from the ground, and those that were removed in an entire state often cracked and broke into fragments, or crumbled into dust. None of the officials of the British Museum knew what steps should be taken to remove the crystalline deposit from the tablets, or how to prevent them from crumbling into dust, and no expert assistance was to be had; for no cleaner or repairer of antiquities had any experience in such work. Mr. Doubleday, the repairer employed by the Trustees at that time, made various suggestions and was allowed to treat some of the tablets, but the results were disastrous. He attempted to bake the unbaked Babylonian tablets, being convinced that he could make them as hard as the baked tablets from Nineveh; but the result of his "firing the tablets" was that the whole surface of both sides of each tablet flaked off and fell into dust, and the inscriptions were lost for ever. Then he made attempts to consolidate the tablets by immersing them in specially prepared preservative solutions; but these too were unsuccessful; for the tablets disintegrated, and lay in little

heaps on the bottom of the vessel. At length Birch stopped the experiments, and nothing further was done in the way of cleaning the tablets for three or four years—in fact, not until after the death of Mr. Doubleday.

Among the frequent visitors to the Departments of Antiquities at this time was Albert Way (1805–1874), the founder, in 1845, of the Archæological Institute and editor of the *Promptorium Parvulorum* for the Camden Society. He was a great authority on mediæval seals, and the study of these brought him into contact with Mr. (later Sir) Augustus Wollaston Franks (1826–1897). Hearing of the difficulty about cleaning the tablets, he told Franks that he was sure that a cleaner and repairer of antiquities employed by him could do what was wanted, and asked him to let him bring his *protégé* to the Museum to look at the tablets. This cleaner and repairer was Robert Cooper Walpole Ready (1811–1903), and as he unaided solved all the difficulties in connection with the cleaning and preservation of the tablets, it will be well to put on record a few facts about this remarkable man. Domestic finances made it necessary for him to earn his living at an early age, and for some years he took whatever work offered itself, and at one time was custodian of the Public Baths at Leeds. He was a keen observer of men and things, and lost no opportunity of adding to his knowledge; he was always strongly attracted to the study of ancient things, and he made the collecting of mediæval seals the hobby of his life. Wherever seals were to be seen, he went to see them; and when the owners or custodians discovered what a mass of information he possessed about such things, they frequently put him in the way of seeing collections in private hands. It was he who made the fine collection of casts of seals which Mrs. Way presented to the Society of Antiquaries after her husband's death.

Ready married early in life, and set up in business as a tobacconist in Norwich; but the work was distasteful to him, for by this time the collecting of mediæval seals had become a passion, and he was never content unless he was occupied in the pursuit of his hobby. The chronic ill-health of his wife finally made him decide to leave Norwich, and he sold his business and went to Cambridge, and offered his services to the University Library and the College Libraries in making casts of the fine seals attached to the documents preserved in them. Both at Cambridge and Oxford he found plenty of work of the kind so dear to him; and in 1857 he was recognized as the first authority on mediæval seals. About this time Doubleday died, and thus the post of repairer to the British Museum became vacant. Supported by Mr. Way and Mr. Franks, Ready offered his services to the Trustees, but found that another competitor, a Mr. Laing of Edinburgh, was already in the field. After much consultation, the Trustees decided that each competitor should have an opportunity of proving his skill; and repairing work was given to each to do. When the results were examined, Birch, Vaux and Franks agreed that Ready was the better craftsman, and in due course he was appointed repairer to the Trustees; but he was not put on the "Trustees' Books," and his services, though considered permanent, earned no pension. He was paid at a certain rate per hour; but though he worked every hour the Museum was open, his total earnings made a very meagre salary. During the winter months he lost many hours' work; for no artificial light, except that given by small padlocked lanterns, was allowed in the Museum. To increase his salary, he did much private work, in the course of which he invented new processes of cleaning and treatment; and his knowledge of practical chemistry stood him in good stead. He refused to divulge his "trade

W. S. W. Vaux, M.A.

Robert Cooper Walpole Ready (1811–1903).

secrets" to officials; and his methods were known to his four sons only. He was a fine electrotypist, and the cases of electrotypes of coins and medals made by himself and his son Charles, which the Trustees present to institutions and Colleges from time to time, are good examples of his skill in this branch of work. Another triumph of his is the cleaned and reconstructed bronze plates of the Gates set up by Shalmaneser at Balâwât, now exhibited in the Assyrian Basement in the British Museum. These plates were much oxidized and were broken into hundreds of fragments when they arrived from Assyria; and the skill shown by Ready and his sons Talbot and Augustus in the cleaning and re-joining of them is beyond all praise.

Robert Ready entered the service of the Trustees in 1858 or 1859, and at once began to work on the tablets and the smaller antiquities from Mesopotamia. He first dealt with the ivory panels of boxes found by Layard at Nimrûd in a dreadfully mutilated condition, cleaned them and treated them by one of his secret methods, and put them practically in the condition in which they are to-day. The bronzes yielded quickly to another of his treatments; and in cases where the oxidization had not destroyed the metal, he obtained good results. The shallow pottery "magical" bowls, *i.e.* bowls used for divining, from Babylon, were difficult to deal with. Soon after they arrived in England, they shot out from their surfaces long, silky, white, hair-like filaments, and so destroyed the inscriptions in Hebrew, Syriac and Mandaïtic which covered their insides. Attempts had been made to save the bowls from destruction by covering them with varnish and other substances; but they failed. Ready analysed the filaments, found them to be composed of sodium, and saw that the only way to stop the "blooming" of the bowls was to extract the salt, which he did by keeping them in

cool distilled water for several days at a time. Thereupon the "blooming" ceased, and both the bowls and the inscriptions on them were saved. Ready then took in hand several fragments of the baked clay tablets from Ḳuyûnjiḳ, which Norris had been trying to copy; and by some means, which he did not divulge, he brought them back clean, with every character legible. He also cleaned successfully many unbaked Babylonian tablets, and found the way to remove from them the patches of hard crystalline deposit without damaging the inscriptions.

Meanwhile other officers in the Museum discovered Ready's value in cleaning and repairing miscellaneous antiquities, and by them more work was heaped upon him than he could possibly do. His skill in putting together pottery vases of all kinds was marvellous; and many of the British urns and other vessels are as firm to-day as when he handed them back to the Departments to which they belonged. On looking back and considering the large number of tablets that he cleaned, it is clear that the debt Assyriologists owe to this silent and unrecognized worker on their behalf is very great. In the case of George Smith this was especially the case, as one instance will show. When he was examining the tablets of the Ḳuyûnjiḳ Collection and searching for portions of tablets inscribed with the story of the Deluge, he found that the large fragment now numbered K. 3375 contained an important part of the legend. One side of it was easily legible; but the greater part of the other was covered with a thick whitish lime-like deposit, which resisted all his brushings and attempts to remove it. It happened that Ready was absent from the Museum on private business for several weeks, and there was no one else to whom Birch would allow the tablet to be given for cleaning. Smith was constitutionally a highly nervous, sensitive man; and his irritation at Ready's absence

knew no bounds. He thought that the tablet ought to supply a very important part of the legend; and his impatience to verify his theory produced in him an almost incredible state of mental excitement, which grew greater as the days passed. At length Ready returned, and the tablet was given to him to clean. When he saw the large size of the patch of deposit, he said that he would do his best with it, but was not, apparently, very sanguine as to results. A few days later, he took back the tablet, which he had succeeded in bringing into the state in which it now is, and gave it to Smith, who was then working with Rawlinson in the room above the Secretary's Office. Smith took the tablet and began to read over the lines which Ready had brought to light; and when he saw that they contained the portion of the legend he had hoped to find there, he said, "I am the first man to read that after more than two thousand years of oblivion." Setting the tablet on the table, he jumped up and rushed about the room in a great state of excitement, and, to the astonishment of those present, began to undress himself!

Not the least of the services rendered to Assyriology by Ready was his invention of the process by which he made plaster impressions of the hard stone cylinders that the Babylonians, Assyrians and other peoples used as seals. On these are cut figures of gods, priests, and private persons, mythological scenes, figures of sacred objects connected with various cults, mythological animals, etc., but it is not until we have good flat impressions to work from that minute details of the work can be studied and the general meaning of the designs made out. The early archæologists had to be satisfied with impressions made in sealing-wax; but parts of them were always indistinct, and as the surfaces were uneven and "lumpy," both the figures and the inscriptions were distorted. Ready, however, devised a

means whereby he obtained perfectly flat impressions of cylinder seals in plaster, in which all the figures, however deeply cut on the cylinders, stand out in full relief, every detail being faithfully shown. Ready passed on the secret of his process to his son Augustus, who entered the service of the Trustees in 1873; and most of the seal-impressions, exhibited in the British Museum, side by side with the cylinder-seals, were made by him.

Between 1860 and 1880 few tablets were cleaned, except those destined for publication in Rawlinson's *Cuneiform Inscriptions of Western Asia*, the fifth and last volume of which work was published in 1884. In 1878 the Trustees had succeeded in obtaining from the Porte through Layard a *faramân*, or authorization, to excavate in the pâshâliks of Wân, Môṣul and Baghdâd; and Rassam had been sent to carry out the work. As the result of his excavations, and by purchases in the open market, the British Museum acquired many thousands of tablets between 1879 and 1884; and of these a very large number needed cleaning and repairs. In 1884, owing to the removal of the Natural History Collections to the new Museum at South Kensington, the Department of Oriental Antiquities, as it was then called, was given five extra rooms in the Northern Gallery and the supplementary gallery running parallel to them, in which to exhibit and to store its antiquities. At the east end of the supplementary gallery a room for the use of students was arranged; and for the first time it became possible to make the various collections of tablets available for examination and study. The immediate result of the making of a room for students was a great increase in the number of students who came to collate published texts and to copy some that were unpublished. Up to about 1880 students had been accommodated with difficulty in Birch's room, now demolished and absorbed in the

Mausoleum Room, and from 1880 to 1884 space was provided for two or three students in a temporary room formed by partitioning off the western end of the old Etruscan Room.

The tablets most frequently asked for by students were those that had been published in the four volumes of Rawlinson's "Cuneiform Inscriptions" (1861–1874); and as both Norris and Smith, who had prepared the copies for this work, and had been the last to handle the tablets, were dead, no one in the Department knew exactly where to find them. A very large number of tablets were kept in Smith's room on the south-west staircase; and thousands of others were laid out in the drawers of the table-cases in the Nimrûd and Ḳuyûnjiḳ Galleries. Smith had apparently examined the Ḳuyûnjiḳ Collection very carefully; for many of them bore his private marks on the edges of the tablets, and their contents were roughly indicated by letters, thus: H = history; R = religion; M = mythology; and so on. A considerable number of Ḳuyûnjiḳ tablets had been registered, and on these the letter K and a running number were painted; tablets that had been copied by Bowler, the lithographer, bore his mark ⊕. The state of the published tablets, so far as cleaning was concerned, left little to be desired; but such was not the case with the remainder of the Collection. Ready's time was too fully occupied with work for the other Departments to allow him to go on with the tablets regularly and steadily; and the same was the case with his sons Talbot and Augustus, whom he had brought to the Museum to help him. When, in 1886, Bezold began to prepare the manuscript for his *Catalogue* of the Ḳuyûnjiḳ Collection, which the Trustees had commissioned him to make, his work was much delayed because many of the tablets which he had to describe were illegible on account of the deposit

which filled up the characters. The difficulty of getting the tablets cleaned was overcome a year or two later, when the officials of the Department found a means of cleaning them for themselves; and from that time the work has been carried out in a systematic manner, to the great advantage of all students. Unbaked as well as baked tablets have been treated with striking success.

Here a word or two may well be said about the way in which the great collection of Babylonian and Assyrian tablets, about one hundred and twenty thousand in number, is preserved in the British Museum. Many hundreds of them arrived at the Museum in fragments which it seemed futile ever to hope to see re-joined. As soon as Norris and Rawlinson began to examine them, they found that it was possible, especially in the case of texts arranged in columns, to re-join many fragments, which were at once stuck together with shellac. Later they were able to re-join many others, when they recognized the continuity of the texts written upon them. Smith, during his search for fragments of historical texts, was able to re-join many more; and the Assistants who succeeded him in the Department have re-joined several hundreds. It soon became obvious that it was unwise to keep the tablets loose in drawers, because they knocked together when the drawers were pulled out or pushed back, and bits of them were chipped off by striking against each other. Therefore it was ordered that every tablet and fragment in the Collection was to be placed in a wool-lined box; and little by little the whole collection has been "boxed." To the inside of each box a paper slip is attached; and on this the registration and running numbers of the tablet in it are written; and as the cover is made of glass, these can be easily seen. When two or more fragments are re-joined, a new box is provided. The tablets are arranged according to the running numbers

on shelves in presses. The first systematic attempt to place the tablets in boxes was made in 1883. Dr. Lyon came to the Museum, and asked to be allowed to collate all the tablets published in the fourth volume of Rawlinson's collection; and permission was given him to do so. Birch instructed me to find the tablets for Dr. Lyon, but this was no simple matter; for the greater number of them were scattered about in various drawers of the cases in the Nimrûd and Ḳuyûnjiḳ Galleries. At length they were found, and the tablets published on Plate I were placed in a glass-topped box specially made for the purpose, those published on Plate II in another box, and so on. The boxing of all the collections of tablets in the Museum followed as a matter of course.

XIII.—THE CATALOGUE OF THE ḴUYÛNJIḴ COLLECTION

The first man who felt the necessity of a catalogue of the Ḳuyûnjiḳ Collection was Birch, Keeper of Oriental Antiquities in the British Museum. When the Department was formed in 1860, all the Assyrian and Babylonian Collections made by Layard, Rassam, Loftus and Taylor, the Egyptian Collections, and the miscellaneous Oriental antiquities were handed over to him; and he at once set about getting them into order. He registered carefully all the Egyptian objects, and began to make a Catalogue of them. He described each object on a slip of greyish-blue paper, adding the date of its acquisition and any details as to its provenance, or the name of the collector who sold it to the Museum, or the sale at which it was acquired, which would help in identifying it and assist him in its custody. His work in writing the thousands of slips for this Catalogue (which is now preserved in the Department of Egyptian and Assyrian Antiquities, and is a wonderful

monument of his capacity for work and tenacity of purpose) was comparatively easy; for he could read hieroglyphic and hieratic texts, and the transliterations and translations that follow his descriptions show that he understood most of their contents. He even published, with the assistance of Mr. (later Sir) Wollaston Franks, Catalogues of the Phœnician and Himyaritic Inscriptions in the British Museum. See the volumes *Inscriptions in the Phœnician Character, discovered on the site of Carthage during researches made by Nathan Davis*, 1856–1858, London, 1863, folio; and *Inscriptions in the Himyaritic Character, discovered chiefly in Southern Arabia*, London, 1863, folio. But in the matter of the Ḳuyûnjiḳ Collection he was comparatively helpless; for though he possessed a certain facility in copying and editing the cuneiform inscriptions on the bas-reliefs, bulls, and larger monuments, he had no skill in reading tablets, and his official duties and private studies left him no time in which to acquire it. When Smith was made his Assistant, Birch urged him to group the tablets according to the subjects of which they treated, and to make at least numbered inventories of them. But from 1868 to the time when Smith left London in 1876 on his third, and fatal, mission, he was far too much occupied in copying texts for Rawlinson, and in searching for fragments of texts of Ashurbanipal and Sennacherib and the missing portions of the Deluge and Creation Tablets, to attend to what he perhaps regarded as the unimportant matter of the custody and safety of the Collections. The need of a Catalogue of the tablets became an urgent matter when students began to come to the Museum to examine and collate the texts which Rawlinson had published in his "Selection"; for when Rawlinson or Smith was absent from the Museum, Birch could not identify the tablets asked for. Birch was averse, and rightly, from putting

unmarked or unnumbered tablets into the hands of any stranger or student, whether foreign or English; and he trusted no one when acting in his official capacity. Time after time he discussed the matter with Rawlinson, who was only too anxious to have a catalogue made. But he had no time to make even an inventory for his own use, still less a catalogue; he much regretted the fact, because either would have enabled him to make his edition of the texts more complete.

Year after year matters remained in this unsatisfactory state; and it was not until 1881 that Birch moved his study and several collections of miscellaneous antiquities from the ground floor of the Museum to the upper floor, where, owing to the departure of the Natural History Collections, several rooms in the First Northern Gallery had been allotted to him. At first students were accommodated in a section of the present First Egyptian Room, which was separated by a wooden screen from the portion of the room open to the public. During the winter of 1883–1884, when the Collections of Minerals had been transferred to South Kensington, it became possible to devote a room to students, whose demands for tablets increased in proportion as facilities for study were afforded them. Then the question of a catalogue of the Ḳuyûnjiḳ Collection again became acute; and Birch and Rawlinson began to consider seriously what kind of a catalogue ought to be made, and what form it should take. After some discussion and consultation with Dr. Strassmaier, an Assyriologist who had been copying tablets for years in Birch's room, Rawlinson took the line that, as at his advanced age (he was then seventy-five) he was unable to work at the Museum regularly, the proposed catalogue must be drawn up in accordance with the rules that governed the production of the other official catalogues, and must be written by some member of the staff under

Birch's direction. He (*i.e.* Rawlinson) found that editing the fifth volume of his "Selection" exhausted all the time that he could manage to give to Assyriology; and he could undertake no further editorial work for the Museum. Before any definite plan for the catalogue could be decided upon, Birch fell into a state of bad health during the summer of 1885, and died on December 26.

Meanwhile a young Bavarian Assyriologist, Dr. Carl Bezold, had been introduced to Rawlinson by Dr. Reinhold Rost, Professor of Oriental Languages at St. Augustine's College, Canterbury. As Bezold had studied the inscriptions of Darius I on the Rock of Bihistûn, and had published books upon them in 1881 and 1884, Rawlinson welcomed him, and did all he could to further his interests and studies in this country. He was a fellow-countryman of Dr. Strassmaier; and his *Kurzgefasster Ueberblick über die babylonisch-assyrische Literatur*, Leipzig, 1886, proved that he had made a profound study of all the literature dealing with the cuneiform inscriptions, and possessed a very considerable knowledge of the actual cuneiform texts. Rawlinson quickly perceived that if Bezold could be induced to abandon his duties in Germany and take up his abode in London, his services might be usefully employed in making a catalogue of the Ḳuyûnjiḳ Collection. The two Assistants in the Department of Oriental Antiquities had no time to undertake the work; for one was engaged in copying texts for Rawlinson's fifth volume and dealing with the custody of the tablets, registration, etc., and the other was occupied in working the Department and in attending to the Egyptian and miscellaneous Semitic Collections. Rawlinson found the best way out of the difficulty under the circumstances, and proposed to Mr. (later Sir) Edward A. Bond, Principal Librarian of the British Museum, that Bezold should be employed by the Trustees to catalogue

the Ḳuyûnjiḳ Collection. The new Keeper of the Department, Mr. (later Sir) P. Le Page Renouf, was instructed to submit a statement on the subject generally, together with a specimen page of the proposed catalogue, and an estimate. He did so, and proposed that the catalogue should be uniform in size with the Catalogues of the Syriac and Ethiopic manuscripts made by Professor W. Wright, and that there should be two columns to the page. He thought that the work would fill a volume of 400 pages, and that the writing of the manuscript and the reading of the proofs would occupy a period of two years. The authorities sanctioned the proposal, and Bezold was instructed to begin work.

This, however, was not such an easy matter as it seemed, for when the specimen page containing two columns was set up, it was at once evident that a great deal of space was wasted; and after many changes in the arrangement of the cuneiform types, a smaller page, viz. one measuring 11 in. by $7\frac{1}{2}$ in., was adopted. The next difficulty was a very serious one, and delayed progress considerably; *i.e.*, without stopping the printing for several years, how was it possible to classify the tablets according to their contents? To do this satisfactorily would require endless labour, and the expenditure of much time; and everyone knew that the character of the inscriptions on many scores of tablets in the Ḳuyûnjiḳ Collection was such as no serious Assyriologist would venture to describe. Finally, it was decided to catalogue the tablets, beginning with No. 1 of the K (*i.e.*, Ḳuyûnjiḳ) Collection, and following on with the others in their numerical order. The hope of seeing the Catalogue printed in two years was not fulfilled; for soon after Bezold began to work, and during the great rearrangement of the Department which began in 1888, several cases were found full of the Ḳuyûnjiḳ tablets which

George Smith had set aside for further examination and apparently had forgotten. The tablets were all unnumbered; but there were marks on the convex edges of many of them in black lead pencil, which indicated the general character of the inscriptions. This discovery made it necessary to revise the estimates as to the length of the Catalogue, the time it would take to write, and the cost of production; but whatever the cost in time and money, it was decided that full descriptions of the tablets should be included in the Catalogue. The net result was that the Catalogue, with the all-important indexes, filled five volumes instead of one, and the compilation and printing of it occupied twelve years instead of two.

The first volume describes 2,191 tablets, fills 451 pages, including the index to the five volumes of Rawlinson's "Selection," and appeared in 1889. The descriptions are lengthy and somewhat verbose; but the information contained in them is exhaustive. To prevent the work from becoming unwieldy, it was decided to condense the descriptions in the succeeding volumes. The second volume describes 5,971 tablets, fills 480 pages, and appeared in 1891. The third volume describes 6,068 tablets, fills 470 pages, and appeared in 1894. The fourth volume describes 2,485 tablets of the Smith Collection, 384 tablets of the *Daily Telegraph* Collection, 1,636 tablets of the Rassam Collections, and 3,483 tablets of miscellaneous collections; in all 7,988 tablets. It fills 582 pages and appeared in 1896. The fifth volume contains an Introduction, a General Index, and three Appendices, and fills 466 pages. The palæography of the Ḳuyûnjiḳ Collection is well illustrated by the twelve collotype plates which are included in the volume. The complete Catalogue thus contains descriptions of some 22,220 tablets and fragments, and fills about 2,500 pages. The descriptions contain careful measurements of each

tablet and fragment, give the number of lines and columns, the subject of the inscription upon it, and where possible the name of the series to which it belongs. Parts of inscriptions of special interest, the names of several gods, cities, countries, names of people, etc., are given in cuneiform, and hundreds of references to printed works in which the texts, in whole or in part, have been published or described or commented on. The Catalogue is most useful for the purpose of official custody, and the number of fragments that have been re-joined by means of it runs into hundreds; and its value to Assyriologists cannot be overrated. The General Index, a marvellous piece of work, has enabled Assyriologists all over the world to specialize in their studies; and without its help many of the works that have appeared during the last twenty-five years could never have been written. The grouping and classification of the texts given in it are fine pieces of work; and in 1899, when this Index appeared, no one but Bezold could have made them. There are, of course, mistakes in it, as there are in Rawlinson's texts; but there must always be a percentage of mistakes in any long and protracted work, and the wonder of the Index is that the mistakes are so few. For twelve years Bezold lived solely for his Catalogue, to say nothing of the years in which he was preparing for his great work. His learning, energy, concentration and persistence command our admiration, and merit the unstinted thanks of all Assyriologists, who by means of it have gained their knowledge of the contents of the greatest library of pre-Christian times which has come down to us, viz. the Ḳuyûnjiḳ Collection. The cost of producing the Catalogue cannot have been less than £5,000, but it is sold at £4 8*s*. per copy (a price that only covers the cost of printing, paper and binding), so that it may be within the reach of every student. The existence of the Catalogue shows that Raw-

linson and his fellow-Trustees counted no cost too great where the consolidation of the foundations of the science of Assyriology was concerned; and the gratitude of every student is due to them for their scientific foresight and liberality.

In 1903–1905, as already said, King and Thompson re-opened the excavations at Ḳuyûnjiḳ, and succeeded in recovering nearly 800 inscribed tablets and fragments, and a few miscellaneous antiquities, which became the property of the Trustees by arrangement with H. E. O. Hamdî Pâshâ, Director of the Imperial Ottoman Museum in Constantinople. When these were examined in England, they were found to be of such importance that it was decided to make and print a catalogue of them to form a Supplement to Bezold's Catalogue. But during the years which had elapsed since the publication of Bezold's volumes, King, in the course of his official duties, had been working through the *débris* of the Ḳuyûnjiḳ tablets, which no one had thought it worth while to examine. In doing this he was able to identify many of the texts on the fragments, and to re-join the fragments themselves to the fragments that Bezold had catalogued. A further examination of the *débris* showed that there were about 2,550 fragments worth cataloguing; and it was decided to include descriptions of these in the proposed Supplement. The printing of the work was sanctioned, and the Supplement was published in 1914. It contains 3,349 entries, an Introduction, a General Index, three special indices, and six collotype plates; and it fills 323 pages. The plan of Bezold's Catalogue was followed substantially; but in explanatory details King was able, in the light of increased knowledge, to make many improvements. The Supplement is in every way a worthy and fitting completion of Bezold's work.

The last volume of Bezold's Catalogue appeared in 1899; and it may be said that every scholar who has published Assyrian texts since the issue of the first volume in 1889 has consulted and freely used one or all of the five volumes of the work, to the great advantage of his own book. To those who devote themselves to making editions of special classes of texts, Bezold's Indices are indispensable. It seems to me that the one great need of Assyriologists throughout the world at the present time is catalogues of the great collections of the Babylonian and Assyrian tablets now preserved in Constantinople, Berlin, Paris, London, Oxford, Philadelphia and other cities in America, as well as of those in private hands. The tablets in each collection might be grouped or classified by the Assyriologist in charge of it, who might begin by publishing a section dealing with the historical and chronological tablets, and follow it up with sections describing those treating of magic and religion, astrology and astronomy, grammar and lexicography, and so on. Until something of this kind is done, it will be impossible for any student to know well the contents of any collection except that to which he has immediate access.

XIV. THE PUBLICATION OF "CUNEIFORM TEXTS FROM BABYLONIAN TABLETS, ETC., IN THE BRITISH MUSEUM."

The second part of the fifth volume of Rawlinson's *Selection from the Miscellaneous Inscriptions of Western Asia* was published in 1884; and no publication of any other great *Corpus* of cuneiform texts was undertaken by the Trustees until 1896. During these twelve years, the Museum acquired a large number of important collections of Babylonian and Assyrian tablets of all kinds; and the great amount and variety of the material which thus became available for study made the problem of publication difficult.

Owing to advancing years and his numerous duties, both official and private, Rawlinson was unable to come to the Museum as frequently as in days past; and he was unwilling to suggest fresh undertakings without seeing and examining the newly-acquired tablets. Moreover, the staff of the Department of Egyptian and Assyrian Antiquities (for such was the new name of the Department) were fully occupied in carrying out the scheme of rearrangement which the Trustees had decided upon; and all their energies were employed in more or less routine work, the object of which was to make the tablets more easily accessible when required by students. The tablets were removed from drawers and arranged upon numbered shelves in upright presses; and then the work of placing each tablet in a glass-topped, labelled and numbered box began. A good room, lighted by a large window in the north wall, was set apart for the use of students who came from the Continent and America and various parts of England; and the satisfying of their demands for tablets kept many members of the clerical staff busily occupied. Great alterations were also carried out in the Assyrian Basement. A strong steel and glass-paved gallery, supported on cantilevers, was built on the level of the pavement of the ground floor; and the sculptures of the Lion Hunt from Ashurbanipal's palace at Nineveh were removed from the walls of the inner room of the Basement, and hung upon the walls above the new gallery. Never before had these splendid specimens of the craft of the Assyrian sculptor been seen to such advantage. The great slabs of the stone pavement from Nineveh were taken from the floor and hung upon the north wall; and the group of bas-reliefs, illustrating the siege and capture of Lachish by Sennacherib, were made to line the walls of the old Phœnician Room on the ground floor. Thus cleared, the Assyrian

Basement was suitable for a lecture-room, and this it has become.

Whilst these and other re-arrangements of equal magnitude were being carried out, it was impossible for Birch or Renouf, each with his two Assistants, to plan new publications of cuneiform texts, or to get any work of urgency done by their staff. Thus when Birch found that a large number of the unbaked tablets from Abû Ḥabbah were crumbling into dust, and that valuable texts were in consequence being lost to science, he was obliged to ask for outside help. Fortunately this was available in the person of M. G. Bertin, who was promptly employed by the Trustees to copy the texts on the said tablets at a fixed rate per tablet. Similarly, when a catalogue of the Ḳuyûnjiḳ Collection became an absolute necessity, Rawlinson proposed that Bezold should be employed to do the work. Another example of the same kind occurred in 1888. Whilst on an official mission in that year, I had the good fortune to acquire a considerable number of the now famous Tall al-'Amârnah Tablets, and to bring them home safely. When they were purchased, the Trustees ordered the publication of the texts in cuneiform types, with a number of collotype plates to illustrate the palæography of this important group of documents; and Rawlinson was asked to undertake the editing of them. The work of copying these tablets was entrusted to a gentleman who had been transferred to the Department from the Department of Printed Books; and he occupied himself with the task in 1889 and a part of 1890. When Renouf retired in Dec. 1890, the work, for various reasons, was unfinished; and what was done of it was pronounced to be unsatisfactory by two experts who were asked to examine it and report upon it. The copying of the Tall al-'Amârnah tablets was undoubtedly a very difficult task and

could only be done by a man who had exceptional knowledge and experience. When Rawlinson was consulted, he recommended that Bezold should be employed to make an edition of the texts; but he declined to act as general editor because, as he said, with characteristic modesty, he had no knowledge of the peculiar class of epistolary compositions inscribed on the Tall al-'Amârnah tablets. But he insisted that a geographical index, and a précis of each letter should be given with the texts. That great palæographer, Sir E. Maunde Thompson, also insisted that collotype reproductions of a number of the tablets should be included in the work, so that the scripts employed by the scribes in various parts of Western Asia should be easily accessible for comparison and study. Bezold was detached for a time from his work on the Ḳuyûnjiḳ Collection; and his edition of "The Tell el-Amarna Tablets in the British Museum" was published in 1892.

Meanwhile the acquisition of tablets by the British Museum continued on a large scale. As already said, I was able to get possession of practically all the tablets that were found at Dêr by the natives in 1889 and all those that were excavated from three chambers at Dêr by myself in the winter of 1890–1891. I brought back from Baghdâd about 2,500; and the remainder, some 15,000, arrived in batches during the next four or five years. In saying that this collection was important, I merely state a simple fact; for it contained a very large number of commercial documents dated in the reigns of the kings of the 1st Dynasty of Babylon, about 2050–1750, B.C. and letters, and miscellaneous inscriptions of value chronologically and historically, to say nothing of the fine group of early Babylonian seal-cylinders, the model of a sheep's liver used for divining purposes, and the list of the names of the years by which contracts, etc., were dated. It was obvious that this mass of new material ought to be

Ernest Wallis Budge, Kt., M.A., Litt.D.

Sometime Keeper of the Department of Egyptian and Assyrian Antiquities in the British Museum.

published without delay; but where were the men who could copy these thousands of inscriptions in the old complex Babylonian character, and where was the money to come from? The news of the arrival of the tablets from Dêr soon reached the Continent; and German students came to the Museum to see what was to be seen and to copy the most important texts in the Collection. Among these was the distinguished Assyriologist, Dr. Bruno Meissner, who was permitted to examine the new material; and he thought the collection of such importance that he asked to be allowed to publish it in its entirety. The sole desire of the authorities in respect of it was to see the tablets published and to know that copies of them were in the hands of students; and the whole collection was placed at his disposal. He worked at them for a time, and published copies of a small section of them; but when his book appeared, it was found that he had dealt with less than one hundred tablets, and there was no hint in it that further volumes were in preparation. So once again the Department had to consider the question of the publication of the tablets from Dêr, and in fact the publication of all the newly-acquired material.

Early in 1894 I was promoted to be Keeper of the Department of Egyptian and Assyrian Antiquities, and it became my duty to think out a scheme of publication of cuneiform texts to be submitted for consideration to the Trustees through the Director. Up to that time we had always had the experience and knowledge and ready sympathy of our great Master to fall back upon; but in 1893–1894 he was often attacked by gout, and spent long periods at Eastbourne for the benefit of his health. I last saw him in May 1894, and found that his interest in cuneiform studies was as keen as ever; but he seemed to be overwhelmed with the rapidity of their development, and the

extent of the literature of Assyriology which had sprung up in recent years. When I asked him what he suggested should be done about publication, he said that he felt that he could make no useful suggestion, and that even if he could, he ought not to do so. He repeated a remark which I have often heard him make, viz., "I was only a pioneer, and not a philologist; and I don't know how I ever managed to decipher the cuneiform inscriptions. It was only the information in them that excited people's interest." By this he meant that it was not his exploits that interested the world, but the actual historical information contained in the inscriptions. He went on to say that he had been obliged to find his own way out of his own difficulties, and that we must do the same with ours; he was quite sure that we should do so. Having inspected the re-arrangement of the sculptures on the ground floor, he went upstairs and looked at the thousands of tablets which had been arranged on trays for his examination, and was amazed at the amount of new material which he saw. He expressed the hope that he would live long enough to read what all the tablets contained; but he died early in the following March (1895).

In the autumn of the same year the Trustees decided to publish a series of copies of the "more important texts of the cuneiform inscriptions on Babylonian tablets and other antiquities in the British Museum," which were to be issued from time to time with the view of making them speedily available. It was thought well to abandon the large *format* employed in Rawlinson's "Selection"; for the plates of text in his volumes were too large for convenient study, and the space required for a volume when open was considerable. It had been found that when the lithographer drew the inscriptions on the stones from the copies supplied to him, he made many mistakes, and that some of these

escaped, quite naturally, the notice of the editor. To avoid this, it was decided to transfer the copies of the texts to the stones by means of photo-lithography, and so one fruitful source of mistakes would be removed; at the same time the cost of reproducing the texts was lessened materially. It was further decided to limit the number of plates in a set of copies to fifty, and to issue them unbound in loose cardboard cases. The issue of the copies in this way would enable the student to arrange the plates according to his own convenience, which it was impossible to do in the case of the sheets of Rawlinson's bound volumes; and the cost of binding would be saved. Specimen plates were prepared and approved on these lines; and in the middle of October 1896 Part I of *Cuneiform Texts from Babylonian Tablets, etc., in the British Museum* was published. The size of the plates was, and still is, 13½ inches by 8½ inches; and they can be carried in a student's ordinary portfolio undamaged. Part I and nearly all the following Parts were published at 7*s.* 6*d.* each, a price which only covered the cost of paper, cardboard cases and lithography. The prices of the later Parts had to be raised considerably because of the high cost of paper, and printing, and materials generally in recent years. But compared with the prices of the Assyriological works published on the Continent, when the quality and quantity of the material given in the Parts are considered, the student will find them relatively cheap. We may note in passing that the price of no publication issued by the British Museum before the War has been raised.

The decision to reproduce the copies of the texts by photo-lithography brought in its train a new and very important modification in the drawing of the cuneiform characters. Bowler and his successor Jankowski drew all the wedges in every character solidly in black; but in the *Cuneiform Texts* the wedges, except those in archaic inscrip-

tions, are in black outline. The well-shaped characters and regular lines of text in Rawlinson's "Selection" are due to the skill of the lithographer; but in the *Cuneiform Texts* we owe them to the copyists. The characters in all the copies of texts published in the latter work were drawn on a large scale and afterwards reduced by photography, the reduction adding greatly to the clear, neat appearance of the published texts. The duty of the copyist is not to make a facsimile of the tablet which he is copying and show every scratch or abrasion of the surface of the clay, but to supply the student with a copy of the text which he can read. It is useless to smother with lines a character which the copyist cannot read with certainty, and to think that the student or a fellow-scholar will be helped by such evidence of the copyist's uncertainty. It is the duty of the copyist to decide what each character is before he copies it, and to make his copy as clear and as neat as possible. A glance at the volumes, recently published in Germany, containing copies of the tablets found at Ḳal'ah Sharḳât, will show how little the copyists have heeded these important facts. For clearness and accuracy the texts published in *Cuneiform Inscriptions* cannot be bettered; and it is good to see that Assyriologists generally are following the methods employed by the English editors of texts and improving their own copies.

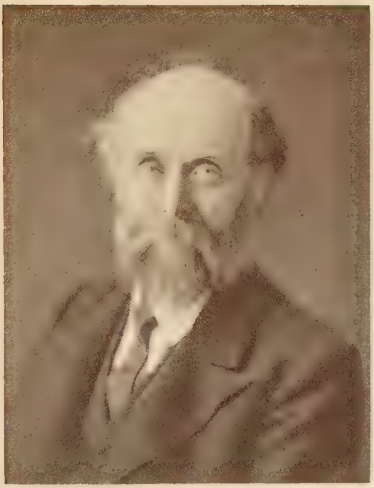
Up to the present time (1925) thirty-eight Parts of the new *Corpus* of *Cuneiform Texts* have been published, *i.e.* nineteen hundred plates of text, containing copies of about two thousand three hundred inscriptions; Part I was published in 1896 and Part XXXVIII in 1925. Almost every variety of cuneiform script is represented, and the inscriptions cover a period of at least three thousand years, *i.e.* from about 3200 B.C. to 200 B.C. The texts are taken from gate-sockets, mace-heads, memorial and foundation tablets,

bricks, cones, statues, archaic stone vases, stone weights, boundary stones, baked clay prisms and cylinders, and about nineteen hundred tablets and fragments. They include inscriptions in "line" or semi-pictorial characters which preceded the use of characters formed of wedges, and inscriptions in Sumerian, Babylonian, Assyrian, Cappadocian and Hittite. In selecting the texts for publication, special care was taken to include every inscription which threw light on the history of the early Sumerian kings and the kings of the first dynasty of Babylon. But the claims of the Ḳuyûnjiḳ Collection were not forgotten, as the texts of the three Classes of Syllabaries (Parts XI and XII), the Creation Series (Part XIII), the Vocabularies (Parts XIV and XIX), lists of gods (Part XXIV), and the religious, magical, and medical texts (Parts XVI, XVII, XX, XXIII, XXV, XXVII, XXVIII, XXX and XXXI) will show. A whole Part (XXVI) is devoted to the magnificent prism of Sennacherib, which tells us more than was ever known before of the walls, gates, gardens, water-supply, etc., of the city of Nineveh. From the texts in this Part we learn that Sennacherib introduced cotton-growing into his country. On the texts published by Rawlinson in his "Selection," and those published in the new *Corpus*, *Cuneiform Texts*, and the three supplementary volumes on the Cappadocian and Hittite tablets, the great edifice of Assyriology is founded. They have supplied the greater part of the material which modern Assyriologists have had to work upon, and the early workers had nothing else. It is greatly to be hoped that the Trustees of the British Museum, who, with Rawlinson's help, nurtured and found the means to develop Assyriology, and brought it to its present position among philological sciences, will be enabled to continue their publications and excavations, and so add to our knowledge of the dawn of civilization in Elam and Babylonia, and increase the debt that every student

of ancient Oriental History owes to their enlightened policy.

The copies of the texts published in the *Cuneiform Inscriptions* were made by T. G. Pinches, L. W. King, R. C. Thompson, P. S. P. Handcock, A. W. A. Leeper, Sidney Smith and C. J. Gadd, Assistants in the British Museum. Mr. (later Dr.) Pinches, of whom mention has already been made, was responsible for the copies of the difficult "case-tablets" dated in the reigns of the kings of the First Dynasty of Babylon, which are printed in Parts II, IV, VI and VIII. He is an expert copyist, and though his cuneiform writing is somewhat small, it is beautifully distinct and clear; his copies are models of neatness and correctness, and may be studied and imitated with advantage by every beginner in the art of copying texts.

The chief contributor to the *Cuneiform Inscriptions* was the late Leonard W. King, M.A., Litt.D., who made the copies for sixteen Parts (I, III, V, VII, IX, X, XIII, XV, XXI, XXIV–VI, XXIX, XXXII–IV). He entered the Museum in 1892, and devoted himself to the study of cuneiform. He was extremely methodical in his work, and made careful notes; and his progress in the study was rapid as well as sure. He possessed a natural aptitude for copying the most intricate and badly-written texts; and his cuneiform handwriting was a joy to behold. There was no uncertainty about the characters he drew, and they were formed by bold, clear strokes of his pen; he never attempted to write a character which he could not read. As a result, his copies have a unique value. His first official publication was Part I of *Cuneiform Texts*, which is filled with copies of tablets of the late Sumerian period. He was especially interested in the group of circular tablets of the time of Bur-Sin, which are dated by events and not by regnal years. This Part was of great importance to students, and has long



Theophilus Goldridge Pinches, LL.D.

Leonard W. King, M.A., Litt.D.

H. R. H. Hall, M.A., Litt.D., F.S.A.

Sidney Smith, M.A.

been out of print. His copies published in the other Parts show that he was a master of all the known forms of cuneiform writing, and that he could read and transcribe them accurately. His other official publications include *A New Collation of the versions of the great inscription of Darius I on the Rock of Bihistûn* (London, 1907), *Babylonian Boundary-stones* (London, 1912), *Bronze Reliefs from the Gates of Shalmaneser* (London, 1915), and *Annals of the Kings of Assyria* (London, 1903). All these are characterized by thoroughness and accuracy of scholarship.

With such a large amount of work to his credit, many a man would have been content to rest from his labours; but not so King; for in his private time he copied and translated many an important text which did not fall within the scope of the publications issued by the British Museum. To help the beginner, he published *First Steps in Assyrian* (London, 1908), and a more elementary work on the language, and one on the *Babylonian Religion* in Kegan Paul's Series "Books on Egypt and Chaldea." In Luzac's Series he published *The Letters and Inscriptions of Khammurabi*, 3 vols. (London, 1898); *The Seven Tablets of Creation*, 2 vols. (London, 1902); *Records of the Reign of Tukulti-Ninib I.* (London, 1904); *Chronicles concerning Early Babylonian Kings*, 2 vols. (London, 1907), and an important volume on *Babylonian Magic* (1895). In 1901 he was granted leave of absence to visit Assyria; and on his return the Trustees sent him out to re-open the excavations at Ḳuyûnjiḳ. He was joined later by his colleague, Mr. R. C. Thompson; and they carried out a great work there, and recovered about 800 tablets and fragments. The collation of the inscriptions on the Rock of Bihistûn which they made whilst on this mission has already been referred to (p. 18). King visited Wân, and copied many rock-inscriptions during this journey, and also collated the famous inscription of

Sennacherib at Bavian. He filled his note-books with a mass of information of a valuable character; but unfortunately much of it remains unpublished. I learned from his conversation on his return that he had visited many sites hitherto unknown to archæologists; and I was convinced that he had tried his powers of physical endurance to the utmost by his continuous travelling. Soon afterwards he fell ill, and matters went hard with him; but Sir James Cantlie eventually diagnosed the tropical disease, and succeeded in saving his life, to everyone's intense relief.

In 1907 I suggested to him that the time had come for him to write a History of Babylonia and Assyria; for no other man at that time possessed in the same degree the necessary knowledge and the general qualifications for writing such a work. I introduced him to Mr. Chatto (of Chatto and Windus) and Mr. P. Lee Warner,[1] whose death in Jan. 1925 will be deplored by every author who knew him; and after a lunch at the firm's house in St. Martin's Lane, King undertook to write a *History of Sumer, Akkad (Babylonia) and Assyria* in three volumes. The first two volumes of the work appeared in 1910 and 1915 respectively; but the third King did not live to write. It is satisfactory to know that the volume on Assyria is being written by Mr. Sidney Smith, his successor in the Department of Egyptian and

[1] He was born in 1877, and educated at Rugby and University College, Oxford. He became a partner in the firm of Chatto and Windus in 1905, he was incorporated in the Medici Society, Ltd., in 1908, and was its Managing Director and Publisher from 1908-1921, when he resigned. He became Managing Director of Martin Hopkinson & Co., Ltd., 1923. The great and important work which he did in producing beautiful books was admirably described in his obituary notice in *The Times*, and it is impossible to overrate it. In spite of chronic ill health he managed always to do the work of three men. As a man of business authors found him not only just, but generous, and his kindliness and sympathy made him their friend as well as publisher. None who knew him will ever forget his tall, slightly-stooping figure, the winning smile, the eager, vivid personality, and, above all, the kindliest heart that ever beat in human bosom.

Assyrian Antiquities, and that we may look for its appearance in 1926. In the two volumes on the history of the Sumerian and Semitic peoples of early Babylonia King marshals his facts and evidence in a masterly fashion, and shows everywhere that his sound deductions are based either on first-hand evidence, or on information supplied by others which he had tested and found to be correct. His volumes are mines of facts in which many have dug with no small advantage to themselves and their books.

Soon after the War broke out in August 1914, he and a very large number of the Museum staff were drafted into other Departments of the Government to do special work. He threw himself heart and soul into his new duties, and in fact overworked. In 1916 he gave the Schweich Lectures, choosing as his subject *The Legends of Egypt and Babylonia in relation to Hebrew Tradition*; they were published at Oxford in 1918. In 1916 the Oxford University Press decided to publish the grammar and exercises on the *Spoken Arabic of Mesopotamia*, which the Rev. John Van Ess, M.A., of the American Mission, Baṣrah, had compiled for the Administration of the Territories. The book was urgently needed for the use of the British Officers in Mesopotamia; and to avoid the delay that would necessarily occur if the proofs were sent to Baṣrah, King was asked to see it through the press. He undertook the difficult task willingly, but the need for the book was so pressing that he had to work at reading the proofs in Arabic and English day and night; and this unfamiliar labour told upon him. The changes made after the printing had begun caused him an immense amount of trouble and worry; and, as before, he overworked. In 1918 the Trustees decided to send King out to Mesopotamia to finish the excavations at Eridu and Ur, which Mr. R. C. Thompson had begun in the previous

year; and with the view of rendering him immune from attacks of the diseases of the country, he was inoculated against typhoid, etc. Unfortunately collapse followed the inoculations, and after some months' illness, King died (August, 1919), to the intense regret of a large number of his friends and admirers. By his death Assyriology suffered an irreparable loss. Want of space makes any adequate discussion of his services to science impossible here; but it is an obvious truth that he published more Sumerian, Babylonian and Assyrian texts than all the other Assyriologists in the world. And the quality of his work was as good as its quantity was great. He was easily the best and most accurate copyist of his generation; and when foreign scholars appealed to him for his opinion about the reading of a sign, his decision was accepted as that of the final authority. His work was eminently sound and sane, and his strong common sense, which was based on real knowledge, kept him from indulging in fantastic and misleading theories such as those of Delitzsch in his *Babel und Bibel*, and those of Winckler in his writings on the imaginary country of Musri. He possessed the gift of making friends; by nature he was kindly and generous, and his disposition was bright and cheerful.

The third contributor to the *Cuneiform Texts* was Mr. R. Campbell Thompson, M.A., F.S.A., who copied the texts for 10 Parts (XI, XII, XIV, XVI–XX, XXII and XXIII). In two of the Parts he gathered together texts of syllabaries of the 1st, 2nd and 3rd Classes; and by their means he was able to reconstruct the syllabaries of the 1st and 2nd Classes. In three other Parts he collected vocabularies and bilingual Lists; and in the remaining five he published a great quantity of material dealing with medicine and magic, portents and incantations. Most of these texts belonged to the Ḳuyûnjiḳ Collection. He gathered together for the

C. J. Gadd, M.A.

J. A. Knudtzon.

R. Campbell Thompson, M.A., F.S.A.

M. Alfred Boissier.

first time a considerable number of the "devil texts," and their great importance is proved by the frequent reference which Meissner, the latest writer on Babylonian magic and divination, makes to them in his *Babylonien und Assyrien*, Bd. II, p. 198 ff. In Part XVI Thompson did good service in publishing in full the text of the tablet which, according to some of the older Assyriologists, contains a description of the Garden of Eden and the Tree of the Knowledge of Good and Evil. It need hardly be said that the text deals with quite different things. Following on his official work on the magical texts, he published in Luzac's Series three volumes, entitled *Semitic Magic* (London, 1908), *The Devils and Evil Spirits of Babylonia* (London, 1903–1904), and *Reports of the Magicians and Astrologers of Nineveh and Babylon* (London, 1900). He was sent to assist in the work of excavating Nineveh in 1903–1904, and was in sole charge of operations there for nearly a year. He went to Bihistûn with King, and assisted him in collating the texts and in taking photographs of the sunk panel containing sculptured figures of Darius I and the leaders of the rebellions against him. Later, Thompson was a member of the mission sent by the Trustees to excavate Carchemish; and he published an account of his wanderings in the Land of the Hittites between Angora and Eregli (*Proc. Soc. Bibl. Arch.*, 1910–1911). As a result of his studies in Hittitology, he proposed a system of decipherment of the pictorial Hittite inscriptions (see *Archæologia*, London, 1913). But it is hardly probable that the actual decipherment of these inscriptions will be made until the indispensable bilingual inscription in Hittite and some known language has been discovered. For many years past Thompson has devoted much time to the study of the Assyrian and Babylonian medical texts, for the reading and translation of which he has a special aptitude. He saw from the first that it would be useless to discuss the medical

knowledge of the Assyrians until all the texts dealing with the subject were published; and he set to work to make a *Corpus* of Medical Texts. He was actively engaged in this work so far back as 1913–1914; but his military service in Baṣrah and Baghdâd during the War interrupted his studies, and he was not able to continue his researches until the Ḳuyûnjiḳ Collection in the British Museum became once more available for students.

It was well known to Assyriologists in 1914 that Thompson was preparing his *Corpus* of Medical Texts of Ḳuyûnjiḳ tablets; yet Ebeling, apparently lacking a full appreciation of the demands of modern science in this connection, began a piecemeal publication of a portion of these fragmentary texts, by bringing out in 1921 thirty-five, and following it by a republication of these with about sixty more in his *Keilschrift-texte Medizinischen Inhalts*, I. In 1924 he published sixty-two more (in Heft II of his book). Such fragmentary work, published piecemeal, can hardly be said to satisfy the student; and in any case it was bound to be swamped and rendered antiquated by Thompson's publication of six hundred and sixty tablets and fragments in the spring of the same year (1924). This edition was the result of a study begun nearly twenty years before, which included persistent collation and handling of the tablets; and it is gradually being followed by his translations, which have the advantage of the rich field for research which so large a number of texts necessarily provided, especially in the difficult subject of drug-names. It is only by the publication of so large a number of fragments that that great problem—"joins"—can be solved with satisfaction, especially in a class of texts which has suffered so much from the ravages of time. And, as a proof of this, it may be added that since the printing off of this *Corpus* of Medical Texts Thompson has made more

than seventy "joins" from among them, a result impossible from a superficial publication.

Thompson has since issued facsimiles and letter-press in which he deals with the identification of medicines, both vegetable and mineral; and for the first time the student of Assyrian medicine has before him accurate copies of all the medical tablets in the British Museum hitherto identified. Many of the conclusions arrived at by Felix von Oefele, Kuechler, Dennefeld and others will need revision in the light of the evidence of the new material given by Thompson in his standard edition of Assyrian Medical Texts. When he has finished with his scientific expositions, we hope that he will write a general work on Assyrian and Babylonian Medicine, in which he will discuss its relationship to the systems of medicine in use among the Greeks, Syrians, Arabs, and perhaps the ancient Egyptians. Thompson has travelled in many countries—Assyria, Babylon, Western Persia, Asia Minor, the Sûdân, Egypt, Tripoli—and a bright and interesting account of his wanderings will be found in his book *A Pilgrim's Scrip* (London, no date). This work contains many illustrations made from his own photographs, and, what is very rare in records of travel, a really useful index.

During the short period of his service in the British Museum Mr. P. S. P. Handcock, M.A., Barrister-at-Law, made copies of the inscriptions which are published in Parts XXVII, XXVIII, XXX and XXXI of *Cuneiform Texts*. The greater number of these dealt with auguries, portents, omens, and other branches of magical literature; and as most of them were published for the first time, they were found to be of considerable interest and importance. With the view of popularizing Assyriology, Handcock compiled a work entitled *Mesopotamian Archæology* (London, 1912) which was read eagerly in Mesopotamia during the War,

and *Latest Light on Bible Lands* (London, 1913). He is also joint author of *Trade Associations*, a practical work for lawyers and commercial men.

When the War broke out, Mr. A. W. A. Leeper, C.B.E., was engaged in copying and preparing material for Part XXXV of *Cuneiform Texts;* but he was drafted off for service in another Government Department, and the Part was finished by Mr. C. J. Gadd. Leeper is a man possessing great linguistic and philological abilities; but he has found a new career in the Diplomatic Service, and all must lament that his services, at least officially, are lost to Assyriology.

In Part XXXVII of *Cuneiform Texts*, edited by Mr. Sidney Smith, we have copies of texts of an historical character, taken from large clay foundation-cones, and a mass of material which formed part of the great magical treatise that was used by witch-doctors in Babylonia. The decisions arrived at by the witch-doctor as to the probable recovery of sick persons were, it is clear, based upon careful diagnoses; and we shall probably find that the same system of doctoring survived in Mesopotamia until the Middle Ages. To Sidney Smith we owe two volumes of *Cuneiform Texts from Cappadocian Tablets in the British Museum* (London, 1921–1925). The existence of this class of tablet was known from the articles of Amiaud, Chantre, Pinches, Sayce, Thureau-Dangin, and Contenau; but in these volumes we have complete copies of about 190 Cappadocian texts, with a sign-list, a plate of facsimiles, and a learned introduction by Smith. These open up a new page of history; for they prove that a settlement of Semitic traders flourished in the region of Cæsarea about 2400 B.C., a fact unsuspected until comparatively recently. Linguistically and historically they are of the highest importance; and Assyriologists will hope that the remainder of

the collection will be published at no distant date. Meanwhile we have a right to expect from him a little book written on the lines of his *Introduction* to the first Part of his edition of the Cappadocian tablets, in which he will describe the trade methods and trade routes of the Semites at Cæsarea and the other great towns in the neighbourhood, in the third millennium B.C. The appearance of Köster's *Schiffahrt und Handelsverkehr* in 1924 makes such a work absolutely necessary.

Among the unofficial publications of Smith must be mentioned the *First Campaign of Sennacherib* (London, 1921) and *Babylonian Historical Texts* (London, 1924). The former supplies much new information as to the course of events that followed this king's accession, and gives us a text in which the military tactics of the Assyrian king in his Babylonian War (703–702 B.C.) are described. The Assyrian text, which is published for the first time, is of great value both historically and geographically; and the translation and comments are admirable. From the BABYLONIAN CHRONICLES given in the latter work, Smith shows that the Assyrian Army which, according to the Book of Kings, was smitten by the "Angel of the Lord," was that of Esarhaddon and not that of Sennacherib, as has been commonly supposed. Smith entered the service of the Trustees in 1914. He was immediately drafted into the Army, and was not demobilized until 1919. He was appointed Assyriologist to the Joint Mission sent by the British Museum and the Museum of the University of Pennsylvania to excavate Ur in 1922–1923; and he has travelled extensively in Mesopotamia. Smith and Gadd are the heirs of Rawlinson in the British Museum, and their skill as accurate copyists and their profound knowledge of the ancient Mesopotamian languages and history should make future Parts of *Cuneiform Texts* peculiarly valuable.

Owing to the War and the death of King, the issue of Parts of *Cuneiform Texts* was suspended for a few years; but the Series was continued with the publication of a series of SUMERIAN HYMNS (Part XXXVI), copied by C. J. GADD, who joined the staff of the Department of Egyptian and Assyrian Antiquities in 1919. For several years past Gadd has made a careful study of Sumerian, *i.e.* the language of the non-Semitic inhabitants of Babylonia; and in 1924 he published his Sumerian Reading Book, which included a short Grammar, to which reference has already been made. In this work he has stated clearly the fundamental facts of the language; and for the first time the diligent student who possesses some knowledge of cuneiform can hope to gain a trustworthy knowledge of the contents of Sumerian texts. The vagueness, uncertainty and theorizing that characterize other works on Sumerian are wanting in this book, which supplies the acute need that has been felt by Assyriologists for many years. In Part XXXVIII of *Cuneiform Texts* Gadd gives us a mass of new material dealing chiefly with Omens. To Gadd we also owe the valuable contribution to early Babylonian Chronology published by him in his *Early Dynasties of Sumer and Akkad* (London, 1921). In this work he has collected all the evidence that can be derived from written records which, as he says, are "almost as old as the events which they commemorate"; and he gives us, for the first time, an "entirely connected scheme of chronology" of the early period of history in Babylonia. An important point in the history of Assyria also has been fixed by him, namely, the date of the fall of Nineveh, which, as he has adduced evidence to show, took place in 606 B.C., and not in 612 B.C., as was hitherto supposed (see *Fall of Nineveh*, London, 1923). Gadd was appointed Assyriologist to the Joint Mission sent by the British

Museum and the Museum of the University of Pennsylvania to excavate Ur and Tall al-'Ubêd in 1923–1924; and he visited many of the principal sites where the English, French, Germans and Americans have made excavations.

XV.—SOME OTHER ENGLISH ASSYRIOLOGISTS

First and foremost among unofficial English Assyriologists must be mentioned the Rev. Archibald Henry Sayce, D.D., Professor of Assyriology in the University of Oxford from 1891 to 1919, Member of the Old Testament Revision Company, Hibbert Lecturer, Gifford Lecturer, Rhind Lecturer, etc. He was born in 1846, and at the age of thirty was elected Deputy Professor of Comparative Philology at Oxford, a post which he held until 1890. In the 'sixties we find him studying carefully the texts in the first two volumes of Rawlinson's "Selection"; and in 1872 he published his "Assyrian Grammar for Comparative Purposes," a work which drew the careful attention of the older Semitic scholars to the "new" language. His paper on the "Origin of Semitic Civilisation" appeared in the same year (*Trans. Soc. Bibl. Arch.*, Vol. I. pp. 294–309). In 1873 he translated parts of the *Synchronous History of Assyria and Babylonia* (*ibid.*, Vol. II. pp. 119–145); and in 1874 he published a long and important paper on the *Astronomy and Astrology of the Babylonians*, with transcripts of the cuneiform texts and translations (*ibid.*, Vol. III. pp. 145–339). About this time the interest of the general public in Assyriology was very great; and the demand for elementary handbooks on the subject was insistent. In 1875 Sayce published a most useful *Elementary Assyrian Grammar* (London), in which cuneiform types, specially imported from Germany, were used. In the three following years he published a series of *Lectures on the Assyrian*

Language and Syllabary (London, 1877), a work on *Babylonian Literature* (London, 1877), and began to contribute translations of long Assyrian texts to the First Series of the *Records of the Past*, the publication of which had been recently founded by Birch. All these works were most instructive and stimulating; and at that time there was no other man in England who could have written them. No one who ever heard Sayce lecture to the students of the Archaic Classes can forget his lucid exposition, and the clear and forceful language in which he clothed his learning. Perhaps the best example of his literary style is found in his *Hibbert Lectures* (London, 1887), a work that also gives a good idea of the range of his knowledge of the cuneiform inscriptions and of his skill in finding out the meaning of difficult texts. For want of time and opportunity, Sayce never became an editor of texts and masses of new material, like Norris and George Smith and his successors in the British Museum; but he possesses the sagacity of the real decipherer, as his decipherment of the Wân Inscriptions (1882), and the Old Susian texts of Mal-Amir (1885) testifies.

His work on the inscriptions at Wân made it necessary for him to examine a cuneiform inscription which Dr. A. D. Mordtmann described in the *Zeitschrift* of the German Oriental Society (Bd. XXVI. 1872). This ran round the rim of a silver circular boss; and within it was a series of hieroglyphic characters, which Sayce believed to be the equivalents of the cuneiform inscription. In other words, he thought that he had found a bilingual cuneiform and Hittite inscription, by means of which the Hittite inscription might be deciphered. His article on the boss of Tarkondêmos and its inscriptions will be found in *Trans. Soc. Bib. Arch.*, Vol. VII. p. 294 ff. From the time of writing this article (1880) Sayce has

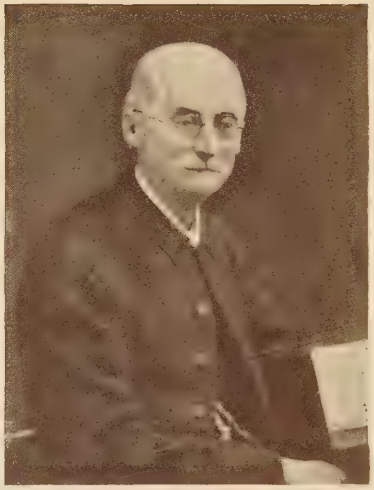
devoted most of his energy to the study of the Hittite inscriptions, both those in hieroglyphs and those in cuneiform; and the mere names of the articles he has written on the subject would fill several pages. As to the correctness of his system of decipherment I am not qualified to speak. For information as to it and to the systems proposed by Conder, Ball, Menant, Peiser, Jensen, R. C. Thompson and Cowley see G. Contenau's excellent *Éléments de Bibliographie Hittite*, Paris, 1922. For two score years or more Sayce has been in the habit of spending several months of the winter season in the East, where he has watched the excavations, copied inscriptions in many languages, and conversed freely with all the leading Oriental archæologists of the last two or three generations. His wide learning and alert and keen intelligence have enabled him to see at a glance the bearings, both philological and historical, of the results they have achieved, and very often to make deductions which have an abiding value. Many of these are set forth with his usual skill in such books as *The Races of the Old Testament* (London, 1891), the *Higher Criticism and the Verdict of the Monuments* (London, 1894), *Patriarchal Palestine* (London, 1895), *The Egypt of the Hebrews and Herodotus* (London, 1895), *Israel and the Surrounding Nations* (London, 1898), *Egyptian and Babylonian Religion* (London, 1903), etc.

In collecting his information he has spared neither time nor money; and he has endured hardship in his quest of knowledge. One year we find him standing up to his waist in water in the conduit between the upper and lower pools, copying the Siloam inscription, and the next he is seen scrambling up rocks in a waterless desert to copy *graffiti*. The natives loved the "mad priest," as they called him; and he was known to many of them as "father of the flat turban," "father

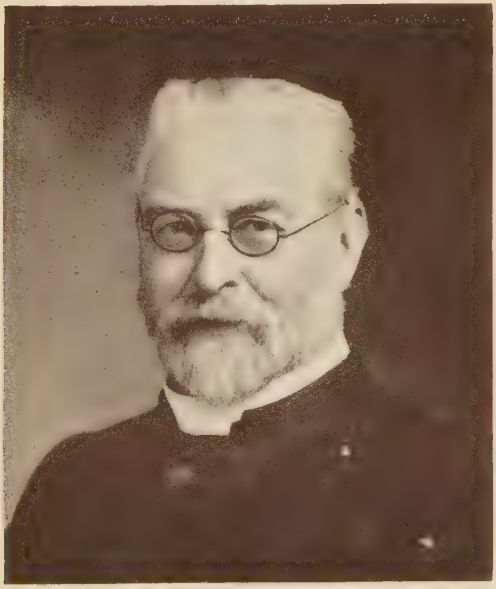
of spectacles," and "lord of the split tail," the allusions being to his clerical hat and coat. Later we find him in the islands of the Pacific (where he was desperately ill), studying Polynesian civilizations, the cults of Java, the Dyaks of Borneo, and the primitive religions of Guinea. Later still we hear of him in Tokyo discussing with the priests and Mrs. Gordon, the well-known authority on Buddhism, Christological Buddhism, and the introduction of Christianity into China by the Nestorians in the early centuries of our Era; and everywhere men wondered at the wideness of his knowledge, his tolerance, and his kindness and sympathy. The work which he did for Assyriology in the first twenty years of his literary life was of great value; and at that time there was no man who could write the books he wrote. But though specialists may regret that he did not devote the rest of his life to the cuneiform inscriptions, and may even revile him because he did not do so, there is no doubt whatever that he has done a great and good work on behalf of Oriental Archæology among thinking people throughout the world. He has made its dry bones live, and has opened the eyes of the multitude to the importance of Egyptology, Assyriology, and Hittitology for the right understanding of the Bible. And he is a fearless seeker after truth, wherever it may lead him. He has at times been sharply criticized, and one scholar went so far as to ask the Deity, "quousque tandem, Domine?" *i. e.* how long he must endure Sayce and his books; but it may be safely said that for every one who read that critic's works, a thousand read Sayce's, and that the name of Sayce will be gratefully remembered when that of the critic is forgotten.

The Rev. C. J. Ball, M.A., was a great Hebrew scholar, and in respect of the Hebrew text of the Bible he was probably the first authority in England. He began to

George Smith.



Rev. A. H. Sayce, D.D.



Rev. C. H. W. Johns, M.A., D.D.

study Assyrian in connection with Hebrew, and was a contributor to the *Speaker's Commentary;* being unable to copy tablets in a way satisfactory to himself, he worked entirely from published texts. He was convinced that the early Sumerian signs were identical in sound and meaning with the old seal-characters of the Chinese, and wrote many papers (*Trans. 9th Or. Congress*, Vol. II. pp. 677–728; *Proc. Soc. Bibl. Arch.*, 1891, 1893 and 1898), and a small book (*Chinese and Sumerian*, London 1913) to prove his theory. He accepted the views of A. E. J. B. Terrien de Lacouperie (see *Bab. and Oriental Record*, 1886), and professed to be able to read Sumerian inscriptions from his knowledge of very ancient Chinese characters. But when he tried to read a tablet written wholly in Sumerian, the result was disappointing to himself and to others. He published the texts of several of the inscriptions of Nebuchadnezzar II in the *Proceedings* of the Society of Biblical Archæology (1888–1889), and a popular work entitled *Light from the East, or the Witness of the Monuments* (London, 1899), which was intended to be an introduction to the study of Biblical Archæology.

The Rev. Claude Hermann Walter Johns, Litt.D. (1857–1920), owed his earliest interest in Assyriology to the perusal of the articles which George Smith wrote for the *Daily Telegraph* in 1873, while excavating at Ḳuyûnjiḳ on behalf of the enlightened proprietors of that newspaper. Johns was placed in the First Class in the Mathematical Tripos in 1880, and then went to Tasmania, where he took a mastership in Horton College and remained for about four years. He was ordained in 1887 and became Rector of St. Botolph's, Cambridge, in 1892. About this time he remembered his early interest in Assyriology, and began to work at the subject in good earnest; in 1898 he was appointed Lecturer in Assyriology at Queens' College,

Cambridge. In 1909 he was elected Master of St. Catherine's College, Cambridge. In the early 'nineties he formed a close friendship with S. Arthur Strong, of St. John's College, Cambridge, who was himself a student of the cuneiform inscriptions; and stimulated by his sympathy, Johns determined to do some original work, and to publish the texts of the commercial tablets of the last Assyrian and Babylonian Empires. When he had collected a large mass of material, and copied and collated the texts and annotated them, the question of publication came up; and here Strong rendered Johns very material assistance. He brought the matter before the Duke of Devonshire; and, having had explained to him the importance for science of this fine piece of original work, the Duke undertook to defray the cost of publication. Johns called his great *Corpus* of contracts, etc., *Assyrian Deeds and Documents;* and these volumes appeared in 1898–1901, and the fourth volume, edited by his widow, in 1923.[1] The number of texts published in these volumes, together with philological discussions, is about 1150. His *Assyrian Doomsday Book* (Leipzig, 1901) may be regarded as a supplement of the *Corpus*. He translated the Code of Khammurabi (*The Oldest Code of Laws in the World*, Edinburgh, 1903); and in the Schweich Lectures for 1912 he gave an interesting account of the *Relations between the Laws of the Babylonian and the Laws of the Hebrew Peoples* (Oxford, 1914). He edited a volume of cuneiform texts from the Pierpont Morgan Collection (1908), published several papers on important inscriptions in the *Transactions* of learned Societies, and contributed many articles to the *Encyclopædia Biblica*, the *Encyclopædia Britannica*, Hastings' *Dictionary of the Bible*, etc. Two small but most useful

[1] In Vol. IV a list of his works, papers, reviews, etc., and a biography of Johns by Mr. R. C. Thompson are given.

works by him were the little volumes *Ancient Assyria* and *Ancient Babylonia*, published by the Cambridge University Press in 1912 and 1913 respectively. In these he incorporated much information which he had collected from unpublished texts during the course of his studies. After he became Master of St. Catherine's College he ceased to publish texts; for he was obliged to devote much of his time and energies to his new duties. For various reasons a blight had settled upon the College, and for many years its influence in the University declined; but under the Mastership of Johns a new era of prosperity began for it. He swept away childish regulations, and by his tact made the Fellows his willing colleagues; as a man who had lived among men and knew the realities of life, his good nature and humanness won the esteem and even affection of the undergraduates. He was no "cloistered don" or "arrogant scholar"; and it is possible that the good work which he did in resuscitating St. Catherine's will prove of more value to the world generally than all his valuable contributions to Assyriology.

His friend S. Arthur Strong (1863–1904) was both an Oriental scholar and an artist. He studied Pali, Arabic and Assyrian with the view of obtaining an Assistantship in the British Museum. He published a *Hymn of Nebuchadnezzar II; Alliterative Texts in Babylonian and Assyrian; Oracles of Esar-haddon; A Letter of Ashurbanipal*, and some Miscellaneous Texts, in the *Journal* of the Royal Asiatic Society (1891, pp. 145–160, 1892, pp. 337–368; *Hebraica*, 1892, pp. 1–3; *Beiträge zur Ass.* (Leipzig, 1894), pp. 627–645; *Bab. and Or. Record*, 1892, pp. 1–9; and *Proceedings of the Soc. Bibl. Arch.*, 1895, pp. 131–151). He was Librarian and Surveyor of Pictures to the Dukes of Devonshire and Portland, and later Librarian to the House of Lords; and he published a *Catalogue*

of the pictures in the Collection of the late Lady Wantage.

Stephen Herbert Langdon, Professor of Assyriology in the University of Oxford, was born at Monroe, Michigan, in May, 1876. He studied Hebrew under F. Brown, in Michigan (1899–1903); Assyrian under Craig and Prince; Arabic, Syriac, Phœnician and Ethiopic under Gottheil; Sumerian and Babylonian under Scheil, Fossey and Thureau-Dangin for three years in Paris; Arabic and Himyaritic under Derenbourg; Syriac under Zimmern in Leipzig; and Arabic under Fischer (1906–1907). In 1908 he was appointed Shillito Reader in Assyriology in Oxford. He became a British subject in 1913, and during the War served for three months "as a regular" in the 22nd London Regiment, and for a year held the post of Curator of the Babylonian Section of the Philadelphia Museum. He has published a large number of texts, *e.g.* *Annals of Ashurbanipal* (1904), *Building Inscriptions* (1906), *Inscriptions from Drehem* (1911), *Königsinschriften* (1912), *Babylonian Liturgies* (1913), *Historical and Religious Texts* (1914), the Oxford edition of *Sumerian Historical and Religious Texts in the Weld-Blundell Collection* (Oxford, 1924). He has written several general works on the history and languages of Mesopotamia, *e.g.*, *Babylonian and Palestine* (1906), *Tammuz and Ishtar* (1914), *History of Sumer and Accad* (1922), the *Epic of Creation* (containing translations of the Seven Tablets of Creation, Oxford, 1923), etc. He has contributed many articles to the *Journals* and *Transactions* of several learned Societies; much of his best work is buried in such publications. He is an indefatigable worker, and has done a vast amount of pioneer work of a most valuable character. He has specialized in Sumerian, and was the first to publish a really useful Grammar of that difficult language. One

must wish that he would revise and enlarge that Grammar, and publish a Sumerian Glossary, or, if possible, a Dictionary, and a *Corpus* of Sumerian Texts, and so complete the work he has begun with so much zeal and ability. In recent years he has directed the excavations of the Weld-Blundell and Field Museum Mission at Kish; and the first volume of his work on the discoveries he made there has already appeared. According to the descriptions of his "finds" which have appeared in *The Times* he has discovered remains which prove that the Sumerians had established their civilization on a firm base, and had already attained a high state of culture, in the early part of the fourth millennium B.C. He has written a large number of articles on Babylonian and Biblical subjects in the *Transactions* of many learned Societies, the *Revue d'Assyriologie*, *Babyloniaca*, etc., and contributed largely to various Encyclopædias. His studies in Sumerian under Thureau-Dangin led him to undertake original work in that language; and the result of it is seen in his books *La Syntaxe du Verbe Sumérien* (1907), *Sumerian and Babylonian Psalms* (1909), *The Sumerian Epic of Creation* (1919), and *Epical and Liturgical Texts* dealing with Paradise, the Flood, the Fall of Man, etc. (1917). To him belongs the credit of being the first to publish *A Sumerian Grammar and Chrestomathy* (Paris, 1911), and so to make the study of this difficult language practicable for beginners. Some of his views and statements are not universally accepted; but time and further information are required for proof or disproof. In arguing from what is known in Sumerian to what is unknown, he is over-bold in the opinion of matter-of-fact scholars. But he has done in twenty years a large amount of hard work for which students will be grateful; and he has undoubtedly added much to our knowledge.

Dr. SAMUEL DAICHES, Barrister-at-law, and Professor

of the Bible, Talmûdh and Midrash at the Jews' College, London, has devoted himself to the study of the cuneiform inscriptions, and has, with the help of his profound and accurate knowledge of the Hebrew text of the Bible, and of the Targûms, Talmûdh, and Rabbinic literature generally, succeeded in throwing much light on difficult inscriptions. He is almost the only Assyriologist who has made a study of the later Hebrew literature; and his contributions to Assyrian Philology are therefore of special value and interest. For the *Zeitschrift für Assyriologie* he has written "On the Tetragrammaton" (1902 and 1909), "Assyrian Hebrew Notes" (1902), "Talmudic and Midrashic Parallels" (1904), "The Code of Hammurabi," a specially valuable paper (1905), "The Elephantine Papyri" (1908), "The Book of Job" (1911), "Lexicographical Notes" (Vol. XVII. f.); for the *Quarterly Statement of the Palestine Exp. Fund*, "The Gezer Calendar" (1909); for the *Jewish Quarterly*, "Ezekiel and the Babylonian Account of the Deluge" (1905), "On Isaiah 27, 28" (1916); for the *Zeit. für Alttest. Wissen.*, Biblical Exegetical Notes (1911); for the *Orient. Lit. Zeit.*, "Notes on Isaiah, chap. 3" (1911), "Gilgamesh-Epic" (1912), "Biblical Names" (1908); for the *Proceedings of the Soc. Bib. Arch.*, "Aramaic Ostrakon" (1913), "Beard of the Ear of Corn" (1915), "Babylonian Dog-Omens" (1917); for *Hashiloah*, "Aramaic Inscriptions" (1907), "The Passover in Egypt" (1912); for the *Jewish Chronicle* (Supplement), "Song of Deborah" (1923); for the *Expository Times*, "Notes on Psalm 17" (1908); for the *Hilprecht Volume*, "Balaam" (1909), etc. Among his independent works are: *Old Babylonian Legal Documents* (Leipzig, 1903); *Babylonian and Hebrew Literature*, in Hebrew (Leeds, 1904); *Jewish Codes and Codifiers* (London, 1909); *The Jews in Babylonia* (London, 1910); *Babylonian Oil Magic* (London, 1913); *The Story of the*

Talmud in Spain (London, 1921); and *Lord Kitchener and his Work in Palestine* (London, 1915). During the Great War Daiches was compelled, owing to the war-work on which he was engaged, to suspend his studies; but it is to be hoped that he will soon finish the important books on Assyrian-Hebrew which he has had in hand for some time.

G. R. Driver (born Aug. 20, 1892), M.A., M.C., Fellow and Librarian of Magdalen College, Oxford, has published *Letters of the First Babylonian Dynasty*, Oxford, 1925, and a *Report on Kurdistan and the Kurds* (published for the Egyptian Expeditionary Force). He has contributed articles on Hebrew Lexicography, the Aramaic Papyri, etc., to the *Journal of Theological Studies* (Vol. 22, pp. 382–383; Vol. 23, pp. 69–73; 405–410; Vol. 25, pp. 177–178, 197–199, 239–303; Vol. 26, pp. 76–77); to the *Journal* of the Royal Asiatic Society, on Syrian Arabic, Assyrian Roots, and the Kurds and their name (1920, pp. 305–318; 1921, pp. 389–393, 563–572; 1923, pp. 393–403); to the *Centenary Supplement* of the *Journal* of the Royal Asiatic Society (pp. 41–48); on "The Epic of Creation," "The Fall of Nineveh," "The Righteous Sufferer" and "The Death and Resurrection of Bêl" to *Theology* (Vol. VIII. pp. 2–13, 67–79, 123–130, 190–197); on the Kurds, and their Religion, etc., to the *Bulletin* of the School of Oriental Studies (Vol. II. pp. 197–213), the *Persian Magazine* (Vol. I. pp. 106–117), and the *Asiatic Review* (Vol. XVII. pp. 695–700); on the Fourth Gospel in the *Jewish Guardian* (Jan. 6 and 13, 1923, Feb. 5, 1925); on the Yazîdî Bird (Melek Ta'us) to *The Times* (Sept. 5, 1924). His studies were interrupted by the Great War, and he served in the Anglo-Serbian Hospital and Postal Censorship (1915); as Captain and Major (D.A.A.G.), he served on the Graves Registration Commission, B.E.F., France; he was an

Intelligence Officer in the Egyptian Expeditionary Force; was wounded in 1916; mentioned in despatches, France, 1917; Military Cross, 1918; and served in Serbia, France, Belgium, Egypt and Palestine. He has in the press *A Grammar of the Colloquial Arabic of Syria and Palestine*, a translation of the *Bazaar of Heracleides*,[1] and a work on the *Modern Study* of the Hebrew Language. He is equipped with a good knowledge of the Semitic dialects akin to Assyrian and Babylonian; and the *Philological Supplement* to the Oxford Hebrew Lexicon should be a very important work.

XVI.—THE SPREAD OF ASSYRIOLOGY

Assyriology in France

The credit of being the first among western nations to make excavations in Assyria belongs to the French; and the immediate cause of their undertaking archæological work in that country was the publication of Rich's *Narrative of a Residence in Koordistan and on the Site of Ancient Nineveh*, in 1836. Their first excavator was P. E. Botta, an Italian born at Turin in 1802, who was appointed French Vice-Consul at Môṣul in 1842. In 1843 he conducted excavations in the mound of Ḳuyûnjiḳ, which produced few results; and then he transferred his labours to Khorsabad, where he discovered and excavated the palace of Sargon II (722–705 B.C.), and obtained a splendid series of bas-reliefs and colossal winged bulls, the finest known. This great discovery was due, as was the discovery of the palaces of Sennacherib and Esarhaddon at Nabi Yûnis by Layard, and that of the fortress of Babylon by Beauchamps, to the natives, who were in the habit of burning the sculptures of Khorsabad into lime for building purposes, and of digging

[1] This has now appeared.

out bricks from the foundations of Babylon with which to build their houses. Botta described his excavations in his letters to Mohl, which were published in the *Journal Asiatique*, Paris, 1843–1845; and the French Government published facsimiles of the bas-reliefs and bulls of Khorsabad in *Monuments de Ninive* (Paris, 1846–1850). The various successors of Botta at Môṣul carried on desultory excavations at Nineveh from time to time in later years; but of the results I can find no account. For the rest, the French seem to have abandoned Assyria as a scene of archæological work.

In 1877 E. de Sarzec was appointed French Consul at Al-Baṣrah; and as soon as he took up his duties, he seized the opportunity which his official position gave him, and began to examine the country, with the view of finding some ancient site worth excavating. He was, of course, well acquainted with the results of the excavations made at Tall Ṣifr, Muḳayyar and other neighbouring sites by Loftus and Taylor; and he questioned the natives in the district as to the possibility of finding an untouched site. These told him that at a certain place which they called Tall Loh, and which lay on the Shaṭṭ-al-Ḥayy, between Warkah and Sankarah, there were several stone statues standing partly uncovered. A series of mounds, they said, ran by the river banks; and we know now that the site covered by them is between four and five miles long. Without more ado, de Sarzec went to Tall Loh, and found that the report of the natives was correct. Dispensing with the permission of the Turkish Government, he proceeded to remove the statues; and he excavated the site on which they stood for three months (March to June), and discovered many important objects. He continued to excavate the large mound from February to June 1878, and then returned to Paris with his spoil, which he disposed of to the

Louvre for the sum of 130,000 francs (Fossey, *Manuel*, p. 50). He invoked the help of his Government; and application was made by the French Foreign Office to the Porte for a *faramân* authorizing him to excavate all the mounds. This being obtained, the Government made him a special grant; and he returned to Tall Loh, and in January 1880 set to work to excavate the whole site systematically. During the spring of 1880 and the winter of 1880–1881 he dug out the great diorite statues of the early *patesis*, or governors, of the old Sumerian city of Lagash, which are now the glory of the Louvre, and a very large number of small objects. He attacked mound after mound, but excavated none of them completely; and his only aim seems to have been to acquire objects as quickly as possible. He found the remains of a Sumerian temple (?), bricks and vases and weapons inscribed with the names of Mesilim, Ur-Nina, Entemena and other kings of Lagash, the famous Stele of Vultures, and the wonderful baked clay prisms inscribed with the history of the work and exploits of Gudea. Between 1881 and 1891 de Sarzec frequently returned to Tall Loh, and made excavations in parts of the seventeen mounds at which he had already worked; but in spite of his exertions he was unable to clear the site completely. When I went over the mounds in the winter of 1890–1891 with Mr. Robertson, British Vice-Consul at Al-Baṣrah, I felt convinced that there were many outlying parts of it that would repay an excavator for his trouble. After 1881 the intervals between de Sarzec's periods of work on the mounds grew longer and longer; and as he took no steps to safeguard his interests in them, the local Arabs, working hand in hand with the men who had been with Rassam in 1879–1882, and supplied with money by the dealers in Baghdâd, began to excavate the mounds on their own account. Their object was not to find large antiquities,

which could not easily be smuggled out of the country, but inscribed clay tablets, which could be carried on the person in the folds of a cloak, or packed in small boxes. The dealers in Baghdâd felt certain that somewhere in some one of the mounds at Tall Loh there must be a chamber or chambers containing inscribed tablets, just as there had been at Abû Ḥabbah; and some of the men who had worked at Abû Ḥabbah went to Tall Loh fully determined to find the chancery of the city.

The ruins at Tall Loh were clearly those of a great mercantile community and of a royal residence; and this being so, the records of the business transacted there, the tax accounts, and the temple library must be there somewhere. The search for the record office and clearing-house of Lagash could not be successfully carried on by clandestine excavations at night; so the work was carried on openly by day. The local officials, whose salaries were more than a year in arrear, saw no reason why they should not yield to the persuasion of the Baghdâd dealers, which was expressed in pecuniary terms; and so, when they saw men digging in the mounds, and were told that they were seeking for dust to lay on the fields, they asked no further questions. At length the unauthorized diggers found what they were looking for in a small compact mound, in which was a series of little chambers containing baked clay inscribed tablets. The news of their discovery spread, as such things will, with extraordinary rapidity; and before they had made arrangements to remove the tablets and pull down the chambers, de Sarzec appeared at Al-Baṣrah. The diggers hurriedly shovelled back sand and stones and earth over the chambers, and began to dig in another mound, one which de Sarzec had partially excavated. When he came to Tall Loh, he was greeted by shouts and cries of joy in the Arab fashion; but

everyone denied all knowledge of any discovery of tablets. His former overseers went to work for him as before; but with one excuse and another they succeeded in keeping him from attempting to dig in the mound containing the tablets; and though his suspicion was by no means lulled, every effort he made to find the tablets was effectively foiled by the Arabs and the servants of his own house. He returned to Al-Baṣrah angry and disappointed, and tried to induce the Governor to send out troops to Tall Loh to compel the natives to disgorge the tablets, which he was certain in his own mind that they had. But that astute soldier knew better than to attempt to apply coercion to the Muntafiks and the wild and lawless tribes who were their neighbours; for the Turkish troops were invariably worsted in their fights with them. On two occasions the Wâlî of Baghdâd sent 1000 soldiers, with as much military equipment as could be gathered together, to reduce the Muntafiks to submission, but not a Turkish soldier returned to tell of the crushing defeats that the Government troops suffered at the hands of the Muntafiks. In many of the tents of the Muntafiks I saw in 1891 piles of saddles, bandoliers and rifles, metal cooking pots, etc., which had been taken from the Turks.

When the commotion stirred up by de Sarzec had died down, the dealers began to press the men at Tall Loh to unearth their prize; for they had heard that the Louvre had paid de Sarzec £5000 (rumour said £50,000) for his first collection of antiquities, and they were anxious to sell the tablets and make money, as he had done. The diggers uncovered the chambers again, and, on opening them, found that some were full of tablets and others partly full; the number of the tablets found on that occasion was probably nearer forty than thirty-five thousand. They were of different shapes, and they varied in size from about

12 inches to $2\frac{1}{2}$ inches square; all were made of baked clay, and most of them were in as perfect a state as when they were stored in the chambers 4500 years ago. Some (the larger ones) were piled up one on the other; many hundreds were laid upon shelves; and the smaller ones were heaped up in pots. As soon as the diggers, dealers and others had arranged about the division of the tablets, they were quickly removed to places in the neighbourhood, whence, as opportunity afforded, they were taken to Baghdâd and Al-Baṣrah. The dealers submitted several specimens of the tablets to an archæologist at that time resident in Baghdâd; and when he told them that the inscriptions on them were not historical, but were chiefly accounts, lists of grain and animals, inventories of cattle and sheep, lists of workmen employed by the priests of the temples and their rations, contracts, etc., they were bitterly disappointed, and at once threw their share of the tablets on the market; and as the diggers had already done the same thing, the market was glutted. Many of the natives, and several Europeans, including captains of the river-boats and ocean-going steamers, and clerks in offices, bought collections very cheaply; for the largest tablets often changed hands at 20 piastres (3*s.* 4*d.*), the medium-sized at 10 piastres, and good contract tablets at from 3 to 5 piastres. Every buyer exported his purchases as soon as possible; and so the great collection of Tall Loh tablets, at least 35,000 in number, was very soon scattered all over the civilized world. Some have blamed de Sarzec for this result of his excavations at Tall Loh; but under the circumstances I cannot see that he could help it. The natives of Tall Loh regarded the mounds and their contents as their property, and readily helped de Sarzec in his clandestine excavations there, believing that they would receive a share of the proceeds of the sale of the antiquities which he took out of them. They heard

from the dealers in Paris that he sold the results of his first and second excavations to the Louvre for 130,000 francs; but of this sum they received nothing. When de Sarzec returned to Tall Loh in 1880 armed with a *faramân*, the natives could not prevent him digging, but they concealed many of the things which they found and sold them to dealers in Al-Baṣrah. When Fate gave the chambers full of tablets into their hands, they determined to keep the knowledge of their existence from de Sarzec; and there is every reason to believe that they did so. They scouted any idea of handing over the tablets to Badrî Beg, the Inspector of Antiquities, and held that they were entitled to keep them as their share of the results of the excavations. I have been told by native dealers from Baghdâd that de Sarzec knew of the "find" of tablets, and that, because he could not do otherwise, he acquiesced in their view. We shall never know the truth now; but all must regret that the Tall Loh tablets were not kept together and put in some Museum, where they would be available for reference and study. A French Assyriologist, in describing Rassam's excavations in 1879–1882, remarks, "En Chaldée, comme en Assyrie, ses travaux ressemblent plus à un pillage qu'à une fouille scientifique" (Fossey, *Manuel*, p. 52); and the excavations of de Sarzec may be rightly described by the same words. After de Sarzec's death, further excavations were carried on at Tall Loh by Captain Du Cros (see *Revue d'Assyriologie*, Paris, 1907).

In 1881 Dieulafoy began to make a systematic examination of all the monuments of the Achæmenian Period and later times in Persia, and in 1884 he went to Shûsh (Susa) and excavated the palace of Artaxerxes Mnemon, from which Loftus had recovered two inscriptions in 1851. His operations lasted until 1886, and were most successful. He discovered the now famous "Frieze of the Archers," and

a large number of other objects which throw great light on the artistic skill of the early Persian craftsmen. His greatest prize was a series of bull-capitals from the Palace Hill, which are now one of the glories of the Louvre. Like other excavators, Dieulafoy got into trouble with the Turkish Customs authorities, who confiscated some fifty-five cases of antiquities which he had acquired at Shûsh. His Government took the matter up; and when he was ready to return to Shûsh to finish his work, he was taken to the Persian Gulf in a French man-of-war. And when he had finished his excavations, by a strange coincidence, another French man-of-war appeared in the Shaṭṭ-al-'Arab, and lay off Muḥammarah. It was generally reported at Baṣrah in 1888 that the crew were anxious to visit the ruins at Shûsh, and that a large party of them were given leave to do so. They arrived at an opportune moment for Dieulafoy, for he was busily engaged in packing his treasures for transport to Muḥammarah; and he found their help very useful, especially as they happened to have brought with them ropes and certain appliances for lifting heavy objects. The results of his diggings filled some hundreds of cases; but they were all brought down safely to the river and carried on to the French man-of-war. This time the Customs authorities raised no objection to the exportation of antiquities. A full account of Dieulafoy's excavations is given by his wife in her work *À Suse: Journal des Fouilles* (Paris, 1888); see also Marcel Dieulafoy's *L'Acropole de Suse* (Paris, 1893).

But the glory of Dieulafoy's excavations at Shûsh was eclipsed by the splendour of the results obtained by J. DE MORGAN (1857–1924), who began to work there in 1897. De Morgan was a trained engineer and a practical geologist; and he had travelled so extensively as a surveyor of mines, that he could speak most European and many Oriental

languages. He is best known by the splendid work he did when Director of the Service of Antiquities in Egypt. Though an engineer and scientist, he was no mean archæologist, and we owe entirely to him the recognition of the fact that in Egypt the Historic Period was preceded, as in other countries, by a Neolithic and a Palæolithic Period. His labours are well summarized in *L'Anthropologie*, Vol. XXIV. p. 467 f., and in the *Revue Anthropologique* for July and August 1924. His excavations at Shûsh were carried out in the same masterly way as those in Egypt; and he reaped a rich harvest of antiquities. The French Government had acquired from the Shâh of Persia, it is said for £10,000, the right to excavate anywhere and everywhere in Persia (1895), and to keep all the objects found by their excavators (1900). De Morgan had plenty of time and money at his disposal; and as he and his workmen were protected by a company of Persian soldiers, he was free from the annoyance and trouble usually caused by the local tribes. He set to work not by sinking pits and driving trenches through various parts of the ruins, after the manner of excavators generally, but by clearing away from the site untold thousands of tons of *débris*, and digging right down to the bottom of the mounds, and even through the foundations of the lowermost buildings in them. He laid bare, one after the other, the ruins of the various buildings that formed the "Citadel Hill," and was able to construct a tentative scheme of chronology, which showed that the site had been occupied by royal buildings for some thousands of years B.C. He discovered some hundreds of bricks inscribed in the Old Susian, Sumerian and Semitic languages, many fragments of pre-Sumerian pottery (which he dated at 12,000 B.C.), an Obelisk of Manishtusu, the Stele of Narâm-Sin, a large number of Boundary-stones, and, most important of all, the great stele inscribed with the Code of Laws of

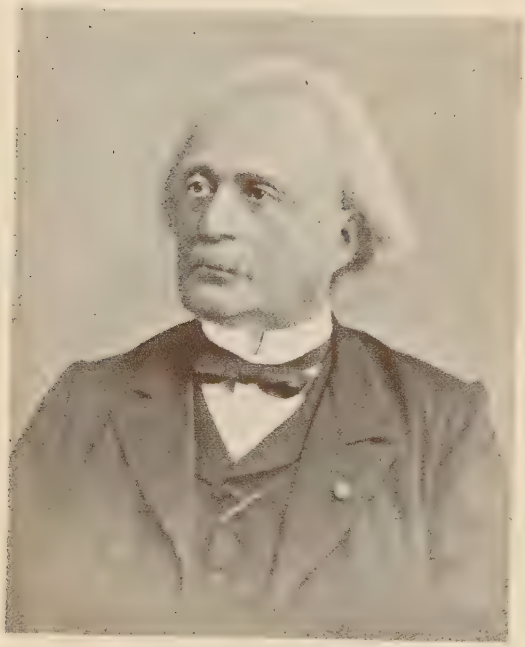
Khammurabi. He published the results of his work in a series of volumes (*Délégation Française en Perse*, Paris, 1900 f.), with numerous facsimiles, translations, notes, etc. The great merit of de Morgan's personal contribution to this publication is that it contains statements of fact, and no wild theories. The excavation of Shûsh is an achievement of which the French may well be proud. The Government not only used its power effectively in respect of the Shâh, and provided sufficient money for the enterprise, but with shrewd foresight selected the best man—in fact, the only man who was capable of doing the work to be done.

The earliest attempts made by the French to read the Assyrian and Babylonian characters seem to have been those of Botta, Longperrier, de Saulcy, and Oppert. In 1847 Botta prepared his *Mémoire sur l'Écriture Cunéiforme*, which appeared in Paris in 1848. He drew up a table of the Assyrian signs most frequently used, with several variants of each; and this list was undoubtedly of value, for, as Rawlinson said, it brought the signs into some "manageable compass." Moreover, he seems to have partly anticipated Hincks's discovery that the Assyrians used a syllabary, and not an alphabet like the Persians. He was able to divide the words with tolerable correctness, though he could not read them; and he certainly identified the determinative for "land" or "country," and assigned the correct value (*Shar*) to the first syllable of the name of Sargon. The latter fact enabled Longperrier to identify the king who built the palace at Khorsabad, though neither Hincks nor Rawlinson accepted the identification until some years later. These facts are clear from the *Lettres* of Botta and those of Longperrier in *Rev. Arch.*, IV*ième* année, pp. 465 and 501, and show that both men were on the right track. Menant and others claim that de Saulcy played a very prominent part in deciphering the cuneiform inscriptions

and in translating them; but to do so is wrong, for his papers show that he did not understand the character of the signs. He thought that one part of each sign represented a consonant and the other a vowel. His friends claimed that Rawlinson's *Syllabary*, published in 1851, was based upon de Saulcy's List containing 120 signs and phonetic values; but it may be replied that de Saulcy's List was based upon Hincks's List, which was published two years earlier, and with which de Saulcy was well acquainted. His papers on the inscriptions at Wân (Vân) and the Khorsabad texts prove that he was a hard and careful worker; but neither in those nor in his other papers does he show that he possessed the qualifications of mind necessary for a decipherer or translator of Oriental texts. For details of his system of work and its results, see Booth, *The Trilingual Cuneiform Inscriptions* (London, 1902, pp. 397–403).

In 1848–1850 the only scholar in France who understood the nature of the problem which decipherers were trying to solve was Jules Oppert, who, though a Jew born at Hamburg in 1825, is commonly regarded as a Frenchman. When only twenty-two years of age he published his *Das Lautsystem des Altpersischen* (Berlin, 1847), in which he showed that his own independent studies had led him to conclusions about the use of consonants similar to those which Rawlinson had arrived at in 1842 and published in 1846. A summary of this important work was published in French in the *Rev. Arch.*, 1848, pp. 1–12, 65–77. Oppert went to France in 1847, and earned his living by teaching German; but he devoted all his free time to continuing the study of Oriental languages, which he had begun when a pupil of Lassen at Bonn. His ability attracted the notice of the older French scholars; and he was selected to be a member of the Archæological Mission to Mesopotamia directed by Fulgence Fresnel (1795–1855). Oppert

Eugène Burnouf.



Jules Oppert

visited all the important ancient sites in Assyria and Babylonia, worked out a map of Babylon, surveyed the Birs-i-Nimrûd, and at the same time began the genuine, life-long friendship with Rawlinson which was of great value to both of these great men. Whilst at Khorsabad with H. Rassam, he astonished that gentleman by reading at sight one of the short inscriptions of Sargon II, in which the king proclaims his name, titles and overlordship of the world. On his return to France he began to publish his report on the work accomplished by the Mission; the first volume of his *Expédition Scientifique de 1851–1854* appeared in 1856, and the second in 1859. This work contained a full translation of the Bihistûn Inscription, translations of several of the texts of the Achæmenian Inscriptions which he edited in the *Journal Asiatique* (1851–1852), a valuable Susian Syllabary, and notes that prove he accepted Rawlinson's system of decipherment and his translations, though he suggested several modifications in details.

In France Oppert's translations were looked upon with suspicion, and this was not removed even when, in 1860, the Institut awarded him its prize of 20,000 francs for his work, which "redounded to the honour of France." A few years later, his system, which de Saulcy and others regarded as nothing more nor less than that of Rawlinson, was bitterly attacked by Joseph Arthur, Comte de Gobineau, in his *Traité des Écritures Cunéiformes* (Paris, 1864); but Oppert went on working. He resigned his professorship of Sanskrit in 1869, when he was appointed Professor of Assyriology in the Collège de France; and from that time to the day of his death in August 1905 he continued to publish books and papers on the Susian (or Median) inscriptions, and the history, chronology, metrology, and law of the Assyrians and Babylonians. A mere list of their titles would fill several pages.

He was a master of many languages, and could read and speak Arabic, Persian, Turkish, Greek, Armenian, and five or six European languages. He was singularly free from literary jealousy, and maintained most friendly relations with the younger scholars who were working on his own special subject, *e.g.*, Spiegel, Menant, Weissbach and Bezold, each of whom published a revised edition of some inscription or group of texts on which he had worked. But he was a bitter foe to all pretenders to knowledge—and there were many in all countries in the early days of Assyriology—on whom he poured out his wrath in many languages. A valuable list of works by Oppert, the " Father of Assyriology in France," as he has been well called, by W. Muss-Arnolt, will be found in Delitzsch's *Beiträge zur Assyriologie*, Bd. II. p. 523 f.

But whilst French scholars in general were suspicious about Oppert's translations, Joachim Menant (1820–1899), a distinguished lawyer, was quietly reading all that was being published on cuneiform decipherment, and testing the results already obtained by Rawlinson, Hincks, and others. He was a man of exceptional philological ability, and he soon came to the conclusion that Rawlinson's system, which, oddly enough, he believed to have been borrowed from de Saulcy, was to be accepted. He adopted it in its main features in his *Inscriptions Assyriennes des briques de Babylone* (Paris, 1859), and developed his views in an important work, entitled *Les Écritures Cunéiformes*, which appeared in Paris in 1860. This was followed by his *Recueil d'Alphabets* (Paris, 1860), *Exposé des éléments de la Grammaire Assyrienne* (Paris, 1868), *Éléments d'épigraphie Assyrienne* (Paris, 1869–1873), *Manuel de la Langue Assyrienne* (Paris, 1880), and *Les Langues Perdues de la Perse et de l'Assyrie* (Paris, 1885–1886). There is no doubt that the acceptance of Assyriology as a well-founded science in France was

wholly due to the writings of Menant. He did in France for Assyrian what Delitzsch did in Germany. He possessed many of the qualities of that scientific translator, as we may see from his *Annales des Rois d'Assyrie* (Paris, 1874). The art of Assyria and Babylonia interested him as much as the language; and the descriptions of the cylinder-seals in his *Catalogue of the La Haye Collection* (Paris, 1878) and the *Williams Collection* (*American Jnl. of Archæology*, Baltimore, 1886) prove that he was no ordinary archæologist, and his treatise, *Les Pierres gravées de la Haute Asie* (Paris, 1883–1886) is still a very useful work. He was one of the first to study the law literature of Assyria and Babylonia; and he was associated with Oppert in the publication of *Documents Juridiques* (Paris, 1877). (His daughter Delphine inherited much of her father's linguistic ability, and wrote a learned work on the Parsees.)

The good work of Menant was followed up by François Lenormant (1837–1883), son of Charles Lenormant, the well-known archæologist. He was a good classical scholar, and studied Greek archæology and numismatics with great success; but in 1867 he turned his whole attention to the study of the cuneiform inscriptions, with the view of deciding for himself whether their decipherment was a fact or a fiction. Some have claimed for him the credit of the discovery of the non-Semitic language then known as Akkadian; but its first discoverer was Rawlinson, as I have shown elsewhere. Lenormant published several articles and books on this language, among which may be mentioned *Études Accadiennes* (3 vols., Paris, 1873–1879), *La Langue Primitive de la Chaldée et les idiomes Touraniens* (Paris, 1875). He showed great boldness and resource in translating Akkadian (Sumerian), and certainly proved that it was a language, and not a form of cryptography. Among his most popular works may be mentioned *La Divination*

chez les Chaldéens (Paris, 1875) and *La Magie chez les Chaldéens et les origines accadiennes* (Paris, 1874). An English translation of the latter work by W. R. Cooper, Secretary of the Society of Biblical Archæology, appeared in London in 1878 under the title of *Chaldean Magic*, with additions by the author and notes by the translator. In collaboration with E. C. F. Babelon, Lenormant wrote a *Histoire Ancienne de l'Orient jusqu'aux guerres médiques* (Paris, 1881–1888), which was a very useful and popular book for some years. It was the forerunner of Maspero's *Histoire Ancienne des peuples de l'Orient classique* (Paris, 1899 ff.).

The publications of French Assyriologists from about 1880 onwards prove beyond all doubt that the belief in the accuracy of Rawlinson's system of decipherment was well established in France long before his death. On the other hand, there were scholars in France and other countries who did not accept the name of "Akkadian," which he had proposed for the non-Semitic language spoken by the people who were masters of Babylonia before the Semites, and who wished (quite rightly, as we now know), to call it "Sumerian." Whilst Oppert, Lenormant, Schrader and Delitzsch were discussing this point, J. Halévy, a man of Jewish origin, who was born at Adrianople in 1827, and who had travelled extensively in Yaman and Abyssinia, propounded in 1874 some new and startling views about the Sumerian language. He set out to prove that Sumerian was not a *language* at all, but an *ideographic system of writing* which the Assyrians had invented, even as they had invented their phonetic system of writing. Further, he said that, even if Sumerian was a language, as many wrongly alleged, it did not belong to the Turanian family of languages; for no Turanian people had ever dwelt in Babylonia, or been in possession of the country. Thus he denied the existence of the Sumerian language, and maintained that cuneiform

writing was invented by the ancient Semitic population of Babylonia. A fierce discussion on the subject broke out, and Halévy was obliged to modify his statements about the ideographic character of the signs; and then he spoke of them as being ideophonic, and later on allographic, and again asserted that they were of Semitic origin. All these views were contested by Oppert and Lenormant, but were accepted in whole or in part by Guyard, the Arabic scholar, Pognon and Delitzsch, and rejected by Schrader, Lehmann and Weissbach, the last-named of whom proved their incorrectness and, in some cases, absurdity. See his *Zur Lösung der Sumerischen Frage* (Leipzig, 1897), pp. 16, 38. The attacks of Halévy's opponents and the answers of himself and his friends continued for many years, and the literature on the "Sumerian Question" has become very considerable. The reader who wishes to see Halévy's theories, views and arguments discussed *seriatim* and with admirable clearness and conciseness, should consult Charles Fossey's *Manuel d'Assyriologie*, tom. I. (Paris, 1904), p. 282 ff. In this excellent work the author marshals his facts, states his arguments, produces his proofs, and sums up the whole question temperately and impartially. His arguments are almost forensic in character; and his results, deduced with characteristic French logic, must satisfy every reader that all Halévy's views about Sumerian were wrong. Halévy was a good Semitic scholar, and a man of great learning; but he was obsessed with the idea that the Semitic peoples of Babylonia were the direct ancestors of the Jews and the founders of all civilization in Western Asia, and the inventors of the writings, literature, science, and the arts and crafts, which had merely been adopted by later peoples. He would cordially have accepted the view of the eminent Talmudist who said that all modern learning was contained in the Talmûdh, and the belief of the chief *mullah* of Baghdâd

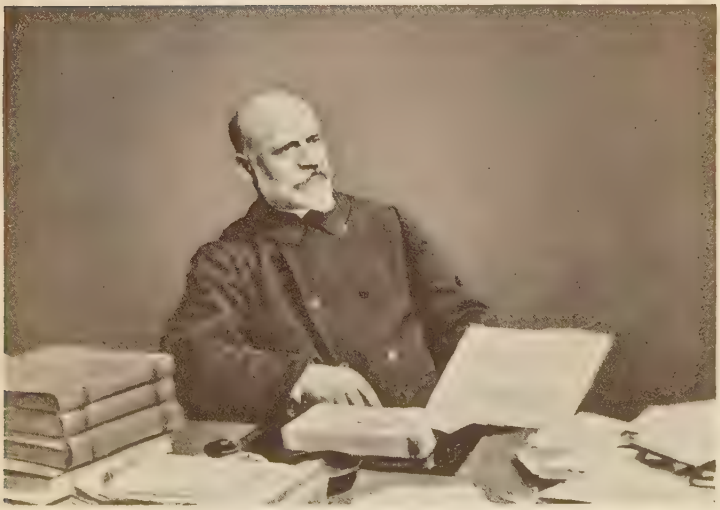
who was convinced that all Occidental sciences were to be found in the Ḳur'ân. Halévy's heresy gained few supporters among French Assyriologists generally; and the good work begun by Oppert and Lenormant was continued with increased zeal and success by the younger scholars. The following (arranged alphabetically) may be specially mentioned :—

M. F. Allotte de la Fuye has published several valuable papers on Sumerian land measures and measures of capacity in the *Revue d'Assyriologie*, and early Sumerian texts. Arthur Amiaud, as far back as 1881, began to collect materials for an Assyrian Dictionary; and a few years later he published papers on the inscriptions on the statues of Gudea from Tall Loh and on a Cappadocian tablet. In conjunction with L. Mechineau he compiled a valuable work containing comparative tables of the archaic Sumerian signs with their Babylonian and Assyrian variants (*Tableau comparé des écritures*, Paris, 1902). About the same time Auguste Aurès published his *Essai sur le système métrique assyrien* (Paris, 1881–1885), and later contributed papers on Babylonian measures to the *Recueil de Travaux* (Paris, 1889, 1893). Philippe Berger dealt with the Code of Khammurabi in Vol. XX. of the *Bibliothèque de Vulgarization* (Paris, 1906). George Bertin compiled grammars of the Sumerian, Babylonian, Assyrian, Median, Vannic and Old Persian languages (London, 1888), and contributed many papers on Akkadian (Sumerian) to the *Journals* of various learned Societies. He was employed by the Trustees of the British Museum to copy the Babylonian contract tablets that were decaying. E. Chantre in 1893–1894 collected a mass of material relating to Cappadocian antiquities in his *Mission en Cappadoce* (Paris, 1898). Édouard Cuq discussed various points of Babylonian Law in the *Revue d'Assyriologie* (Paris, 1910–1915). Louis Delaporte specialized in

the study of the seal-cylinder, and compiled most valuable Catalogues of the great collections of the Louvre and the Bibliothèque Nationale (Paris, 1910) and the Musée Guimet (Paris, 1909), and of several smaller collections. His articles on seal-engraving and on the subjects represented, etc., are learned, and throw much light on the archæology of the seal in Western Asia. A. J. Delattre published several articles on the Tall al-'Amârnah Letters (1891–1893), a work on the historical inscriptions of Nineveh and Babylon (Paris, 1879), and a survey of the Assyrio-Babylonian civilization (Louvain, 1900). To Charles Fossey we owe the important *Manuel d'Assyriologie* (Paris, 1904), and several volumes of Babylonian and Assyrian texts, copied chiefly from tablets in the British Museum. In his study of Assyrian and Babylonian magic he continued the work begun by Lenormant; and his *La Magie Assyrienne* (Paris, 1902) forms a valuable contribution to our knowledge of the subject. His *Corpus* of Omen-texts, of which the first part appeared in 1905, remains unfinished. H. de Genouillac has published Sumerian texts and copies of the tablets of Drehem, and discussed the Stele of Vultures from Tall Loh, and various points of Sumerian Law. He conducted excavations at Al-Uḥêmar, the great mound that contains the remains of the city of Kish, which some think was the first city built after the Flood, and is about to publish an account of the discoveries he made there. Léon Heuzey studied the art and archæology of the early Sumerian sculptures (*Monuments et Mémoires*, Paris, 1900, 1905), and contributed several papers to the *Journals* of many learned Societies and the *Revue d'Assyriologie*, 1896, 1898, 1906). He published many important facts about the buildings at Tall Loh, having had access to de Sarzec's papers, and a *Catalogue* of Chaldean sculptures in the Louvre (Paris, 1904), and successfully treated architectural

matters that lie outside the knowledge of the ordinary Assyrian philologist. See his *Un Palais Chaldéen* (Paris, 1888). Eugène Ledrain translated the great text of Ashurnaṣirpal and compiled a *Dictionnaire de la langue de l'ancienne Chaldée* (Paris, 1898); Y. Le Gac published the texts of the Babylonian tablets in the Musée Lycklama at Cannes (1894 and 1910); and Alfred Loisy compared Babylonian myths with the early chapters of Genesis (Paris, 1901). A number of Neo-Babylonian letters were edited by F. Martin in 1909, and a series of religious texts with translations, etc., in 1900. (See *École des hautes études*, Fasc. 130.) The name of Gaston Maspero must be included among the names of French Assyriologists; for, though he was not an editor of cuneiform texts, his *Histoire Ancienne des Peuples de l'Orient* shows that he was well acquainted with the works of Assyriologists, and was able to control their results. He knew how to select his sources of information, and he frequently had a truer insight into the meaning of an inscription than its editor; he rendered splendid service to Assyriologists in general by admitting their contributions to the volumes of his *Recueil de Travaux*. To Léon de Milloué we owe an interesting little work on the Code of Khammurabi (*Bibliothèque de Vulgarization*, tom. 26, Paris, 1907), and a summary of the Laws of the same Code (D. Mirande, Paris, 1913). H. Pognon published the inscriptions of Nebuchadnezzar II in the Wâdi Brissah near Lebanon (Paris, 1887), and several notes on Assyrian lexicography, and was able, by virtue of his position as French Consul in Baghdâd, to render many services to Assyriology. Charles Virolleaud spent many years in studying the Assyrian and Babylonian texts that deal with magic; and his numerous papers and books have thrown much light on the subject. His explanation of the system of making inquiries by means of the liver is ingenious, and his writings

M. Thureau-Dangin.



Father Jean Vincent Scheil.

on *Ophiomancie Babylonienne* and omens and divination in general form a valuable supplement to Lenormant's *Chaldean Magic*. His most important work is perhaps *L'Astrologie Chaldéenne* (Paris, 1903, 1905–1912); unfortunately it remains unfinished.

Most of the French Assyriologists, whose works have been briefly mentioned above, were scholars who devoted their energies to the study of special branches of Assyriology, and did not endeavour to deal with the subject as a whole. But France has not, in recent times, lacked scholars of the type of Rawlinson and Oppert, and first and foremost among these stand Jean Vincent Scheil and François Thureau-Dangin. For forty years and more Father Scheil has been publishing papers and books on every branch of ancient learning that Assyriology has made known to us, and, as in his case archæology and philology have worked hand in hand, the results which he has obtained by his researches are specially valuable. He is no mere arm-chair Assyriologist; for he has toiled with the natives in Babylonia, where he spent a whole winter in excavating a part of the site of Sippar (Abû Ḥabbah). He worked there on behalf of the Imperial Ottoman Museum in 1891, and succeeded in finding more than a thousand tablets. The story of what he did and the plans of the site which he cleared out are published in Vol. I. of the *Mémoires* of the French Archæological Institute (Cairo, 1902). In his papers in the *Recueil de Travaux*, the *Revue d'Assyriologie*, and Bezold's *Zeitschrift für Assyriologie*, he has dealt with the religion, chronology, history, metrology, grammar, epigraphy, etc., of the Babylonians and Assyrians; and he has translated every kind of inscription from the Sumerian texts of the time of Gudea down to those of the Neo-Babylonian contracts. His *Recueil de signes archaïques* (Paris, 1898), and the

Grammaire Assyrienne (Paris, 1901), which he wrote in conjunction with Fossey, are very useful works. But his most important work has been done in connection with the great French publication, the *Délégation en Perse*, of which seventeen volumes have appeared. In many volumes of these *Mémoires* he has published the texts from the antiquities excavated by J. de Morgan at Shûsh (Susa), with translations, critical comments and notes. In Vol. VI. (1905) he gave the texts of nearly two hundred small tablets inscribed with inventories, lists of rations, etc., written in the Anzanite script of Elam. In Vol. XVII. he has published 490 documents of the same class, and added a list of the signs; and though he cannot read them all, there is evidence in his work that he will soon be able to do so. The signs on these tablets cannot be identified with the earlier pictographic and linear signs of the Sumerians; and thus it seems that the Proto-Elamitic, or Anzanite, script was indigenous. In the time of Sargon of Agade (2700 B.C.), the Anzanites, it is thought, borrowed the Sumerian phonetic script and used it in inscriptions on their monuments, and reserved their own native script for business documents. It is possible that the Anzanite indigenous script is based upon the writing of a still earlier period. Though neither Scheil nor anyone else can read it at present, Scheil seems to have made progress in identifying the signs for numbers; and he thinks that the Proto-Elamitic numerical system was purely decimal. Anzanite epigraphy, history and philology promise to form an important branch of Assyriology; and it is fortunate for the science that the inscriptions on the bricks and monuments of Shûsh have fallen into the devoted and most capable hands of Father Scheil.

Among his philological triumphs are his translations of the famous Code of Laws of Khammurabi, the Inscriptions

of Narâm-Sin, and the Semitic Inscriptions from Elam. He was the first to translate the Code (*Code des lois* [*droit privé*] *de Hammurabi, roi de Babylone vers l'an* 2000 *avant Jésus-Christ*, Paris, 1902); and his translation of it has formed the foundation on which all subsequent translators, commentators, epitomists and others have based their researches. It is in every sense of the word a great work, and is as remarkable in Assyriology as Maspero's translation of the Pyramid Texts was in Egyptology. Equally important for Assyriologists, though of less interest to the world in general, are Scheil's translations of the Semitic texts of Narâm-Sin (*Inscriptions de Naram-Sin. Délégation en Perse*, tom. VI., Paris, 1913), whose Stele of Victory was found at Shûsh (Susa). From the same place came a series of Elamite historical inscriptions (*Textes Élamites-Sémitiques. Délégation en Perse*, Paris, 1913), many of which he has translated with conspicuous success. It is pleasant to note that after so many years spent in strenuous Oriental studies he finds rest and pleasure in renewing the classical studies of his boyhood. He has printed for private circulation a little book of Odes in Latin (*Carmina*), and a book of Latin Epigrams (*Epigrammata*) which contain many happy allusions to Babylonian and Assyrian personages, countries, etc. His Epigrams on a Babylonian cylinder-seal, a Boundary-Stone, an Assyrian duck-weight, and a paper squeeze of an inscription on a brick, well illustrate his whimsicality and lightness of touch. Assyriologists will greatly appreciate his Ode on the Code of Khammurabi (*Carmina*, II.) which opens thus :—

Ex Susiano pulvere proditas,
Leges libellus continet hic sacras
Quas undecim saeclis, Lycurge,
Te prior, Hammurabi coëgit.

Terris remotis imperium suum
Quum protulisset, par sibi visus est
Pacis labori dictus, idem
Legibus aedificans et armis.

His pleasure in returning to the writing of Latin Odes is neatly expressed in Ode IV; and his Lament on the death of his friend J. Étienne Gautier is most touching. Referring to Gautier's work, *Archives d'une famille de Dilbat au temps de la première Dynastie de Babylone* (Cairo, 1908), he says :—

Gualterus plures titulos peritus
Juris et legit Babyloniorum,
Editis luci tabulis figlinis
Dilbatis urbis.

And all who knew Gautier will endorse Scheil's opinion of him as :—

Vir sapiens, facetus,
Strenuus, mitis, probus et modestus.

Thureau-Dangin, joint editor with Scheil of the *Revue d'Assyriologie*, was one of the first Assyriologists to devote himself to the study of the inscriptions on the monuments at Tall Loh; and as far back as 1892 we find him contributing papers on cylinder A of Gudea to the *Zeitschrift für Assyriologie* (Bd. XVI. ff.). Three years later he published Part I. of a comprehensive work on all the cylinders of Gudea, with transcripts of the texts, translations, commentary, grammar and vocabulary (Paris, 1895). He has discussed in various papers the history of the dynasty of Agade, and of the kings of the Second Dynasty, and the length of the rule of the kings of Gutium, and published many inscriptions that throw much light on the early Sumerian Period (see *Les Inscriptions de Sumer et d'Akkad*, Paris, 1905). The history of the Kassite Period has also claimed his attention (*Journal Asiatique*, Paris, 1908, Vol. II.). He has investigated the system of

land-measuring in use in the Sumerian period, and early arithmetical fractions, and commercial contracts, and cleared away many of the difficulties that were inherent in these subjects. He has examined the cuneiform writing of all periods with a critical eye and has set forth his results with admirable clearness in his *Recherches sur l'origine de l'écriture cunéiforme* (Paris, 1898–1899). His papers in the *Revue d'Assyriologie* have added greatly to the knowledge of Assyriologists, and have placed in their hands not only new material of the greatest value, but also accurate translations of many important inscriptions. His copies of cuneiform texts are well written, and are free from the shadings that are so frequently seen in the work of other editors of texts. It is clear that he always takes the trouble to find out exactly which sign the scribe wrote on the tablet before he attempts to copy it. And the deductions he makes from facts disclosed by the inscriptions are characterized by the unanswerable logic which is always found in the work—no matter of what kind—of the best French scholars. His knowledge of Assyriology ranges from the inscriptions of the kings of Kish (2800 B.C.) to those found on the tablets containing calculations of the distances between the fixed stars, which were compiled during the Seleucid Era. And he is undoubtedly one of the two best Sumerologists in the world.

Like Thureau-Dangin, Georges Contenau is a diligent student of Sumerian. He has published several of the account tablets concerning copper and clothes from Umma, in Lower Babylonia (*Revue d'Assyriologie*, Paris, 1915, tom. XII.), and a considerable number of texts from tablets found in recent years in Cappadocia. His work on the *Histoire Économique* of Umma (Paris, 1915) well describes some of the business methods of the Sumerians, which seem to have been of the same nature both in the south

and in the north of Mesopotamia. Contenau's essay on the *Naked Babylonian Goddess* (Paris, 1914) is a very interesting study in comparative iconography.

Assyriology in Switzerland

Assyriologists have been so much occupied in dealing with the results of the great excavations made by the English and French that the work done in Switzerland has escaped the notice of many. It was known in a vague way that there was a collection of Assyrian antiquities at Zurich; but until Boissier published his *Notes sur quelques Monuments Assyriens à l'Université de Zurich* (Geneva, 1912), definite information about it was wanting. Some remembered that Oppert had seen a contract tablet in Zurich which, he wrongly stated, was dated in the reign of Pacorus, A.D. 81; but when it was discovered that the name on the tablet was that of Xerxes, interest in the collection subsided. The Zurich Collection was made by Julius Weber, who was born at Bubikon in 1838 and died at Zurich in 1906. He lived for some time in Aleppo, but took up his abode at Baghdâd in 1860. There he heard much about the discoveries of Botta and Layard; and he determined to carry out excavations on that part of the site of Nimrûd which Layard had left untouched. He succeeded in uncovering a number of bas-reliefs, bricks, etc.; and in 1863 he sent home to Zurich his first consignment of antiquities. Other gifts of a similar character followed in subsequent years; and thus Zurich obtained the nucleus of a good collection of Assyrian remains. The worthy citizens of Zurich did not appreciate the gifts at their true value; but they admired the public-spiritedness of their fellow-citizen. Oppert lectured to them on the Collection in 1867 under the auspices of Scheuchzer and Keller; and the attitude of the city fathers to it is well

illustrated by an observation made by one of the latter on that occasion. After hearing Oppert's fervid and eloquent discourse, and seeing him reading the inscriptions off-hand, he remarked, "Ob alles richtig ist, wissen wir nicht."

The arrival of the Weber Collection in Zurich was the immediate cause of Grivel's devoting himself to the study of Assyriology. Joseph Grivel was born at Chapelle-sur-Oron in 1810 and died at Fribourg in 1876. He was by profession Registrary of the Court and Notary, and was appointed Treasurer of the State at Fribourg in 1856. He did not begin to study Oriental languages until he was thirty-eight years of age; and he published, by lithography, his first attempt at translating the "Standard Inscription" of Ashurnaṣirpal II (883–859 B.C.) in 1867. This little work was severely criticized by Gaugengigl in the *Bayerische Zeitung;* but it is clear that this writer only made Grivel's paper an excuse for expressing his contempt for Assyriologists in general, and his doubts and suspicion concerning their works; in fact, he made Grivel a scapegoat. Grivel shows in his work that without teacher and without books his acute mind had arrived independently at most of the conclusions concerning cuneiform writing which are generally accepted by Assyriologists to-day. After all, he has, as Boissier rightly observes, the merit of being "le premier assyriologue suisse," and he is therefore the "Father of Assyriology" in Switzerland.

Étienne Combe of Lausanne contributed many articles to the *Revue de l'Histoire des Religions*, and was an expert student of comparative religion; he also published an edition of some Arabic inscriptions. His one work which entitles him to be mentioned as an Assyriologist is his *Histoire du culte de Sin en Babylonie et en Assyrie* (Paris, 1908). In this work he showed that the Moongod

Sin was from time immemorial the paramount god in Mesopotamia, and supported his arguments with extracts from the cuneiform inscriptions. I cannot find that he ever attempted to copy cuneiform texts or to publish them.

To Alfred Boissier, Oriental traveller and Assyriologist, we owe many books and pamphlets on several interesting but difficult branches of Assyrian learning. He travelled in Cappadocia with Chantre when he went on his second mission to that country, and he published an account of his own work there in *En Cappadoce: Notes de Voyage* (Geneva, 1897). This book contains autotype illustrations of the bas-reliefs at Iasili-Kaia, the Citadel of Cæsarea, the Convent of Surp Garabed, and other important buildings. He has edited and translated many texts dealing with divination (*Choix de Textes*, Geneva, 1905–1906), magic and astrology (*Documents Assyriens*, Paris, 1894–1899), and written a short but interesting paper on the arts of the seer, the physiognomist and the palmist (*Revue d'Assyriologie*, tom. VIII.). In other papers he has dealt with *Assyrian Fables*, the legend of *Cain and Abel* (Geneva, 1909), the situation of the "Earthly Paradise" (Geneva, 1906), Assyrian medical plants, etc. His *Notice* of the Assyrian monuments in the Zurich Museum is a useful guide for the visitor; and the biographies of Weber and Grivel which he includes in it will be read with interest by many Assyriologists. He has written several short but interesting papers on the less well-known branches of the old science of divination, to which little attention has been given by the Assyriologist, e.g., "Iatromantique, physiognomonie et palomantique Babyloniennes" (*Revue d'Assyriologie*, Paris, 1911) and *Présages fournis par certains insectes* (Hilprecht Ann. Vol., pp. 352–364). One of these insects appears to have been the praying mantis which, the Book of

the Dead tells us, guided the deceased to the throne of Osiris. In "Notes" and short papers in the *Proceedings* of the Soc. Bibl. Arch. he has often called attention to points that have been entirely overlooked by Assyriologists, *e.g.*, the two gryphons which George Smith (*Assyrian Discoveries*, p. 146) found sculptured on the lintel of a doorway in the east court of the palace of Sennacherib at Ḳuyûnjiḳ. See Boissier's "Note" in the *Proceedings*, Vol. XIX. (1897), p. 250.

Assyriology in Germany

Though Grotefend continued to publish papers on the cuneiform inscriptions of Persia and Assyria until 1856, it is quite clear that Oriental scholars in Germany had by that time begun to doubt the accuracy of his translations of Assyrian texts, and were inclined to examine with characteristic thoroughness Rawlinson's system of decipherment and his translations. Among those who had followed carefully the writings of Rawlinson, Hincks and Oppert was Eberhard Schrader (1836–1908), a native of Brunswick, Professor of Theology at Jena and later of Oriental Languages at Berlin; and we must regard him as the "Father of Assyriology" in Germany. His paper, *Die Basis der Entzifferung der Assyrisch-babylonischen Keilinschriften geprüft*, in the *Zeitschrift d. Deutsch. Morg. Gesellschaft* (Bd. XXIII., 1869, pp. 337–374), proves that he accepted Rawlinson's system. And his transcription, translation and glossary of the Babylonian text of the trilingual inscription of Darius I at Bihistûn, printed in Vol. XXVI. of the same work in 1872, make it quite clear that he had studied the cuneiform inscriptions for several years before he began to publish the results of his labours. In the same year he published a complete translation, with transliteration, of the Assyrian text of the Legend of the Descent of

Ishtar into the Underworld (*Die Höllenfahrt der Istar*, Giessen, 1874), with a commentary; and this work established his reputation as an Assyriologist. Fox Talbot, Lenormant and George Smith had published translations of parts of the text; but Schrader's knowledge of Semitic languages enabled him to give a connected meaning to the whole of it. In 1876 he discussed Halévy's theory that Sumerian was only a species of cryptic writing invented, like other cuneiform characters, by the Semites, and not a language; and his views coincided on the whole with those of Rawlinson (see *Zeit. D.M.G.*, Bd. XXIX., pp. 1–52). His work *Keilinschriften und Geschichtsforschung* (Giessen, 1878) enhanced his reputation greatly in Germany; but the book that gave him world-wide fame was his *Die Keilinschriften und das Alte Testament* (Giessen, 1883). An English translation, made from the second enlarged German edition, by Owen C. Whitehouse, appeared in London in 1885–1888. In this work Schrader displayed a wide knowledge of the history of Western Asia and of the languages spoken there in ancient days; and it won consideration and sympathy for the new science of Assyriology throughout Germany. Of his other works and papers there is no need to make mention here; but he will be ever remembered as the founder of that most useful series, the *Keilinschriftliche Bibliothek*. He was a fine example of the old type of German scholars; his modesty was as great as his learning, and of his courtesy and kindness to me personally, both in Berlin and London, I have most pleasant recollections.

Side by side with him as one of the pioneers of Assyriology in Germany, though belonging to a younger generation, must be mentioned Friedrich Delitzsch (1850–1923). He began his Oriental studies at an early age, and very soon mastered the fundamentals of Assyrian as

Prof. Dr. Eberhard Schrader.

Prof. Dr. Friedrich Delitzsch.

Prof. Dr. Fritz Hommel.

Prof. Dr. Carl Bezold.

then understood. Early in the 'seventies he became a Privatdocent, and formed a class for students of Assyrian; he prepared for their use a most useful Reading Book (*Assyrische Lesestücke*) with a short Grammar, Glossary and Syllabary, which went through five editions. He came to the British Museum in 1877 to collate published texts and to copy unpublished texts; yet although he worked hard then and in subsequent years, he never became an expert copyist. But he was a good teacher, and he begrudged neither time nor trouble in helping his German pupils, and whatever information he had he gave them; some of his best work will be found in the books that bear the names of his pupils as their authors. See Lotz, *Die Inschriften Tiglathpileser's I*, Leipzig, 1880. We may note that Delitzsch did not in this case consider that Rawlinson's text needed re-editing. In *Wo lag das Paradies?* (Leipzig, 1881) he grouped together a great deal of valuable geographical information; but as he had not visited Mesopotamia at that time, and had not examined the maps of Taylor, Felix Jones and Trelawney Saunders, the sites of some of the oldest cities are wrongly placed by him. In 1887 he began to publish his *Assyrisches Wörterbuch* in the same *format* as that of Brugsch's great Egyptian Dictionary. But the time had not come when such an ambitious enterprise could be undertaken with success, for the simple reason that hundreds of fragments of syllabaries, lists of words, and other lexicographical material in the British Museum were then unpublished. When three parts had been issued, its publication was discontinued. Delitzsch's *Assyrisches Handwörterbuch* (Leipzig, 1896) is most useful, and is a good example of his careful and painstaking work. As with his *Lesestücke*, so with his *Assyrische Grammatik* (Berlin, 1889), which he compiled with the view of helping the student; he made no pretence of being an editor of

inscriptions, and his chief aim was to provide his pupils with what he believed to be accurate texts. Texts published for the first time by him are extremely few; for he could not trust his own copies. He was led astray by Halévy's specious arguments about Sumerian, and for some years he supported those views; eventually he came to the conclusion that Sumerian *was* a language, and wrote a book on the principles (*Grundzüge*) of Sumerian Grammar (Leipzig, 1914), and compiled a Sumerian *Glossary* (Leipzig, 1914), and published *Sumerisch-akkadisch-hettitische Vocabularfragmente* (Berlin, 1914). The last time I saw him was shortly before the Great War broke out, when he told me that he was preparing a new edition of his *Handwörterbuch;* from a letter which I received from him a little time before he died I gathered that he had finished the work. It is to be published shortly. His death was a great blow to German Assyriology.

Many men who have risen to eminence as specialists in some branch of Assyriology have been his pupils; and among the greatest of these was Carl Bezold (1859–1922), who was born at Donauwörth in Bavaria. When still a schoolboy he began to study Chinese and Assyrian; and Prof. Martin Haug, the distinguished Pehlevi scholar, directed his work for some years. His university career began in 1877, and he studied at Munich, Leipzig and Strassburg. He worked diligently at Arabic, Syriac, and other Semitic languages under the great Arabist Fleischer, Delitzsch and Theodor Nöldeke, and at the same time managed to make himself proficient in English, French, Italian and some of the languages of Northern Europe. His skill in acquiring languages was very great; and his capacity for work was almost incredible. He lived in London from 1888 to 1894, and was engaged in writing his *Catalogue* of the Ḳuyûnjiḳ Collection, and in preparing

an edition of the text of the Tall al-'Amârnah tablets in the British Museum. The latter work shows at its best his skill in deciphering and translating a very difficult class of texts, which were then wholly new to Assyriologists. His *Oriental Diplomacy* (London, 1893) was a most useful supplement to the official edition of the cuneiform texts. In 1894 he succeeded his friend Brünnow as Professor of Oriental Philology at Heidelberg; and he held this high office until his death. He edited and translated the Ethiopic text of the "Kebra Nagast," and the Syriac and Arabic texts of "Ma'arath Gazzê" with complete success. From 1886 to 1915 he edited the *Zeitschrift für Assyriologie*, and founded in connection with that journal the series *Semitistische Studien* (Berlin, 1894–1900). His knowledge of Assyriology was encyclopædic; and he placed it freely at the disposal of every serious student for the asking. Those of us at the British Museum who knew him well discovered that one of his dearest wishes in life was to compile a great Assyrian Dictionary, or rather "Thesaurus," in size and style like the Syriac Thesaurus of Payne Smith. But though he worked steadily at his self-imposed task for many years, and the Academy of Heidelberg had undertaken to finance the publication of his Dictionary, death overtook him, and the great work remained unpublished. It is, however, satisfactory to know that his *Assyriologisches Glossar*, which is based on the larger work, but does not contain references to texts, is announced for publication this year (1925). For biographies of Bezold and a list of his works see Enno Littmann in *Zeit. für Ass.*, Bd. XXXV., Zimmern in *Z.D.M.G.*, Bd. II. (New Edition), p. 129, and Boll in the *Sitzungsberichte* of the Academy of Heidelberg for 1923.

Fritz Hommel (born 1854), the learned editor and translator of the Ethiopic *Physiologus*, and the Arabic version of the Legend of Barlaam and Yoasaph, and joint editor

with Bezold of the *Keilschrift für Geschichtsforschung* for two years, studied the cuneiform inscriptions under Delitzsch. He has written many valuable papers on the Sumerian language and the pre-Semitic civilization of Babylonia, and on Babylonian astronomy and kindred subjects. He was one of the first in Germany to collect the facts from Assyrian and Babylonian sources, and to construct a connected history of the various ancient peoples of Western Asia. See his *Geschichte des alten Morgenlandes* (Berlin, 1912), and *Geschichte Babyloniens und Assyriens* (Berlin, 1885). His work on the geography and history of the Ancient East, now in course of preparation, is eagerly awaited by Assyriologists and Egyptologists alike.

John Nepomucene Strassmaier, S.J., was born at Hagenberg in the "Bavarian Forest" on May 13, 1846; and he died in June 1919. He was a good Chinese scholar, and had a sound knowledge of Persian, Arabic, and the Semitic languages generally. In 1875 he became acquainted with Birch; and for some years he spent his long vacations in Birch's private room in the British Museum, studying the cuneiform inscriptions. Before he came to the Museum, he had read and studied all the literature bearing on the decipherment of the cuneiform inscriptions, and all the works of Rawlinson, Hincks, Norris, Oppert, and George Smith, and was able to translate many of the texts printed in Rawlinson's great official publication. He was convinced that it was a waste of time to compile an Assyrian Dictionary, or to write a history of the Sumerian and Babylonian civilizations, whilst so many tens of thousands of tablets in the British Museum and elsewhere remained unpublished; and he determined to devote himself to copying texts and publishing new material. He published the inscriptions on tablets of Nabopolassar and Smerdis (*Zeit. für Ass.*, 1889), Nebuchadnezzar II (Leipzig, 1889), Nabonidus (Leipzig,

The Rev. Dr. John Nepomuk Strassmaier, S.J.

1889), Cyrus the Great (Leipzig, 1890), Cambyses (Leipzig, 1890), and Darius I (Leipzig, 1892–1897), and so made available to students a very large number of commercial documents written during the Captivity of the Jews in Babylon. He collected all the words in the second volume of Rawlinson's "Selection," and added to these many hundreds of the words he found in unpublished texts in the British Museum, and gave them to the world in his *Alphabetisches Verzeichniss* (Leipzig, 1886). This is a volume of 1144 pages quarto; and every page of it was written out in his beautifully clear writing for the lithographer with his own hand. He also published many texts in the *Proceedings* of the various Oriental Congresses which he attended, and several very interesting popular articles on Babylonian Gods, and the Tall al-'Amârnah Tablets in the *Month* for June, August and December, 1879, March 1884, and August 1892. He was a skilled copyist of cuneiform texts of all periods, and rendered good service to astronomers by providing Father Epping, S.J., with copies of Babylonian lunar observations, texts relating to stars, etc. (See Epping, *Astronomisches aus Babylon*, Freiburg, 1889). Epping's work has been revised by Father F. X. Kugler, who has shown how the complete Babylonian theory of astronomy may be reconstructed from his foundations. (See *Die Babylonische Mondrechnung*, Freiburg, 1900, and *Babylonische Zeitrechnung*, Münster, 1910.) For about twenty years Strassmaier copied tablets daily in the Museum from 10 a.m. to 4 p.m.; and he must have copied half the Collection. He was a kindly man, and was always ready to help beginners, especially when they became serious students. He copied texts for them, collated their copies, and construed difficult passages for them, quite regardless of his own work, time or convenience. Bezold's *Catalogue* owes much to his wide knowledge and shrewd

advice. He was easy of access, tolerant and charitable to the faults of others; and his counsels always made for peace. On his theological studies, see Father J. H. Pollen's article in the *Month* for February 1920, pp. 137–144.

Among those in Germany who, following on the lines of Schrader, Delitzsch and Bezold, have made discoveries and published and translated unpublished or partly-edited texts, and have specialized in various branches of Assyriology, may be mentioned the following. Ludwig Abel helped Winckler to prepare his edition of the texts of the Tall al-'Amârnah Letters. The assistance he rendered to Winckler has been belittled in some quarters; but the fact remains that it was he who copied all the texts that were published by lithography in Winckler's *Der Thontafelfund von el-Amarna* (Berlin, 1889–1890), and there is reason to believe that Winckler himself never copied one line. This fact helps to explain why Winckler did not publish the texts on the tablets which he found by the thousand at Boghaz Keui in 1906; the truth is that he could not copy them. Abel published a paper on a fragment of a Tall al-'Amârnah tablet (*Stück einer Tafel aus dem Fund von el-Amarna*) in Bezold's *Zeitschrift*, 1892.

Walter Andrae published works on the *Anu-Adad-Tempel in Assur*; *Die Festungswerke von Assur*; and *Die Stelenreihen* (*Avenues of Stelae*) *in Assur* (Berlin, 1909–1913). These are issued by the Deutsche Orient-Gesellschaft. Rudolph Ernst Brünnow compiled a *Classified List of all simple and compound cuneiform ideographs with their Assyro-Babylonian equivalents and phonetic values* (Leyden, 1889), and a book of *Indices* to the same (Leyden, 1897), a most useful and valuable work. He also published *Assyrian Hymns* in the *Zeit. für Ass.* (Leipzig, 1889–1890); a valuable series of articles, "Correspondance Sumérologique," in the *Revue Sémitique*, 1905, 1913; and papers on the

Mitanian Language (*Zeit. für Ass.*, 1890), and on Sumerian (*Revue Sémitique*, 1906–1907).

Erich Ebeling has published a series of Old Babylonian Letters (*Rev. d'Assyriologie*, Paris, 1913); *Babylonische Beschwörung* (in Hommel's *Festschrift*); *Das Verbum der El-Amarna Briefe*, Heft 1 and 2, and has collaborated with Weber in writing the *Anmerkungen* in the second volume of Knudtzon's transliteration and translation of the Tall al-'Amârnah Tablets. His most important work is the edition (in progress) of the religious texts from the tablets found at Ashur, *Keilschrifttexte aus Assur Religiösen Inhalts*, of which about ten parts have already appeared. Joseph Epping, with the help of copies of lunar calculations, etc., made by Strassmaier, discussed the Saros-Canon of the Babylonians, and worked out the calculations for the years 38 and 79 of the Seleucid Era. His work *Astronomisches aus Babylon* appeared after his death. H. H. Figulla has edited *Der Briefwechsel Bêlibni's* (Leipzig, 1912), *Altbabylonische Verträge* (Leipzig, 1924), and *Keilschrifttexte aus Boghazköi* (Leipzig, 1920). E. Forrer has published the texts of a large number of the Boghaz Keui Tablets (*Die Boghazköi-Texte in Umschrift* (Leipzig, 1922)), a volume of *Keilinschrifttexte* (Leipzig, 1922), and Hittite Historical Texts (*Geschichtliche Texte aus dem alten Chatti-Reich*, Leipzig, 1922). He has also written on Assyrian Chronology and the Provinces of the Assyrian Kingdom. Friedrich Hrozny has published several important works on the Hittites and their languages, and has edited a series of texts from Boghaz Keui (*Über die Völker und Sprachen des alten Chatti-Landes*, 1920; *Die Sprache der Hethiter*, 1917; *Hethitische Keilschrifttexte aus Boghazköi*, 1919–1921; all published at Leipzig). He has also proposed a system of decipherment of the Hittite inscriptions written in cuneiform. Peter Jensen has written on the Mitanian language,

and on the Cappadocian inscriptions, and has published *Myths and Epics in Assyria and Babylonia* (Berlin, 1900), *Das Gilgamesch-Epos in der Weltliteratur* (Strassburg, 1906), and *Die Kosmologie der Babylonier* (Strassburg, 1890). Alfred Jeremias has written many books and papers on the Babylonian Religion; his most important works are *Das Alte Testament im Lichte des Alten Orients* (3rd edition, Leipzig, 1916), and *Handbuch der Altorientalischen Geisteskultur* (Leipzig, 1913). His paper "Die sog. Kedorlomertexte" SP. III. 2 SP. 158+SP. II. 962 (in Hommel's *Festschrift*) is of interest. Ernst G. Klauber has written an important work on the official administrative classes in Assyria (Civil Service?), entitled *Assyrisches Beamtentum* (Leipzig, 1910), and published a pamphlet on epistolography (*Keilschriftbriefe*, Leipzig, 1911). Josef Kohler has collaborated with F. E. Peiser in *Babylonische Vorträge* (Berlin, 1900), and written on the law documents of the Assyrians (*Assyrische Rechtsurkunden*, Leipzig, 1913), and discussed ancient legal methods of procedure. F. Xaver Kugler has written papers on Babylonian astronomy, and an interesting book (*Sternkunde und Sterndienst Babel*, Münster, 1907–1910) on the cult of the stars in Babylon. He has published a series of lunar calculations copied by Strassmaier. W. Lotz published a transliteration and translation of the Annals of Tiglath Pileser I (*Die Inschriften Tiglathpileser's I.*, Leipzig, 1880). The commentary contains many valuable notes by Delitzsch. Bruno Meissner has contributed papers on Babylonian letters and laws, hunting, falconry, etc., to various journals, and has written a short Assyrian Grammar (Leipzig, 1907), a *Chrestomathie* for beginners (Leyden, 1895), a *Supplement* to the existing Assyrian Dictionaries (Leyden, 1898), and a valuable series of *Assyriologische Studien* in several volumes for the Vorderasiatische Gesellschaft. In his *Babylonien*

und Assyrien (2 vols., Heidelberg, 1920–1924) he has given a summary of all the well-ascertained facts concerning the civilizations of the Sumerians, Babylonians and Assyrians. He has done for these peoples much the same as Wilkinson did for the Egyptians in his *Manners and Customs of the Ancient Egyptians*. Leopold Messerschmidt has edited a volume of texts from Ashur (*Keilschrifttexte aus Assur Historischen Inhalts*, Leipzig, 1921), and a volume of *Schriftdenkmäler* (Leipzig, 1907). F. E. Peiser has edited law texts in collaboration with Kohler, and written on legal procedure in Babylonian chronology, the Assyrian characters, etc. He also published a *Sketch of Babylonian Society* (Washington, 1899). Arno Poebel has edited *Historical Texts* (1914), *Historical and Grammatical Texts* (1914), and *Grammatical Texts* (1914), for the University of Pennsylvania. He has written on the Sumerian Verb (*Zeit. für Ass.*, 1908), and is the author of a Sumerian Grammar (*Grundzüge der Sumerischen Grammatik*, 1924). G. A. Reisner has edited a series of Sumerian-Babylonian hymns (Berlin, 1896), and written on Babylonian metrology (Berlin, 1896). Paul Schnabel has written on Babylonian chronology (*Studien zur Babylonisch-Assyrischen Chronologie*, Leipzig, 1908), and published an important work on Berossos (*Die Babylonische Chronologie in Berossos' Babyloniaka*, Leipzig, 1908). Otto Schroeder has edited a volume of the historic inscriptions and a volume of miscellaneous texts from Ashur (*Keilschrifttexte*, 1920, 1922); a volume of El-Amarna tablets, a volume of contracts from Warka, and a volume of Old Babylonian letters in the series *Schriftdenkmäler* (Leipzig, 1907). Arthur Ungnad has edited Parts 3–9 in the series *Schriftdenkmäler*, and published the text of the Code of Khammurabi (*Keilschrifttexte der Gesetze Hammurapis* (Leipzig, 1909); a series of Babylonian Letters of the time of Khammurabi (Leipzig,

1911); and he has collaborated with H. Gressmann in *Altorientalische Texte* (Tübingen, 1908), and with Kohler in *Assyrische Rechtsurkunden* (Leipzig, 1913). Translations of the law documents, contracts, etc. which he published in Berlin in 1907–1909, will be found in Brill's *Semitic Study Series* (Leyden, 1907–1908). Otto Weber has collaborated with Figulla in a volume of Boghaz Keui texts (Leipzig, 1919), and written a sketch of the literature of the Babylonians and Assyrians (Leipzig, 1907). E. F. Weidner has specialized in the study of Babylonian Astronomy and Astrology, and the Calendar, and published the first part of a *Handbuch der Babylonischen Astronomie* (Leipzig, 1881). He announced various discoveries in *Babyloniaca* (Paris, 1910–1914). In collaboration with Figulla he has published two parts of the *Keilschrifttexte aus Boghazköi* (Leipzig, 1916). His works on chronology include *Die Könige von Assyrien* (Leipzig, 1921), *Studien zur Assyrisch-babylonischen Chronologie* (Leipzig, 1917); and he has published a list of the Kings of Babylon and Assyria in Meissner's *Babylonien und Assyrien* (Bd. II. p. 439 ff.).

Hugo Winckler was an indefatigable worker, and published books and papers on almost every branch of Assyriology. He edited the texts of the Tall al-'Amârnah tablets (*Der Thontafelfund von el-Amarna*, Berlin, 1889–1890), and published complete transcriptions and translations of the same in German (Berlin, 1896), and in English (New York, 1896). He wrote several articles on the civilization of Babylonia; and his *Geschichte Babyloniens* (Leipzig, 1892) was translated into English by J. A. Craig (New York, 1907). He was somewhat of an erratic genius; and though his learning was considerable, his deductions were frequently unsound, and many of his theories were based on his imagination. He directed the excavations of the German Oriental Society at Boghaz Keui, and discovered some

thousands of tablets inscribed in cuneiform, among them being the draft of the Treaty that the Hittites made with the Egyptians in the reign of Rameses II. For his account of his work, see *Deutsch. Literaturzeit.*, 1907, pp. 807–808; *Orient. Litt.* Bd. IX. (1906), pp. 411, 607–609, 621–634; *Vossische Zeitung*, Nov. 9, 1906; the *Vorläufige Nachrichten* in the *Mitteilungen d. Deut. Orient. Gesellschaft*, Bd. XXXV. (1907), pp. 1–59; and Winckler and Puchstein in the *Smithsonian Report* for 1908, pp. 677–696 (with illustrations). H. Zimmern has specialized in the study of Babylonian *Hymns and Prayers* (Leipzig, 1905, 1911), and edited and translated a series of *Babylonian Penitential Psalms* (Leipzig, 1885). In connection with these he has written papers on *Babylonian Rhythm and Metre*. His *Biblische und Babylonische Urgeschichte* (Leipzig, 1901) has been translated into English by J. Hutchison (London, 1901). He has edited the texts of a series of Cult-Songs, and copied several Ritual texts. His other writings include papers on the god Tammuz, the Tall al-'Amârnah Letters, translations of the famous *Prayer of Gudea*, an essay on the *Purim Festival of the Jews*, and a work on the Babylonian Religion (*Beiträge zur Kenntnis der Babylonischen Religion*, Leipzig, 1912–1913). He has also collected a mass of material from Babylonian sources, which he uses in an attempt to prove that the "Christusmythe" is derived from the legends of Bel-Merodach (*Zum Streit um die Christusmythe*, Berlin, 1910). Another important work of his is *Keilinschriften und Bibel nach ihrem religionsgeschichtlichen Zusammenhang* (Berlin, 1903).

Valuable work on Persian and Susian inscriptions has been done by F. H. Weissbach and W. Bang in their monograph *Die Altpersischen Keilinschriften* (Leipzig, 1893); see also Weissbach's *Die Achaemenidinschriften zweiter Art* (Leipzig, 1890). Weissbach has also written on the Sumerian

Question, and on the Grave of Cyrus at Murghâb, the Babylonian Calendar and Chronology, the Achaemenian Chronology, etc. Eduard Mahler has discussed the Saros Canon and Babylonian Chronology in many papers; Eduard Meyer has compiled a *Geschichte des Alterthums* (Stuttgart, 1884–1902), and has written on the Sumerians, Babylonians and Hittites; W. M. Müller's *Asien und Europa* (Leipzig, 1893) contains a mass of useful information on the history and geography of Western Asia and Egypt; and mention must be made of F. Muerdter's *Kurzgefasste Geschichte* (Stuttgart, 1882), which contains a great deal of work by Delitzsch, and was a most useful book in its day. Karl Frank has specialized in the study of Assyrian and Babylonian art, and investigated the symbolism of the figures on boundary-stones, and the iconography of the gods. F. von Oefele has written papers and pamphlets on the tablets inscribed with lists of plants used in Babylonian and Assyrian medicine. The volumes of *Der Alte Orient* (Leipzig, 1900–1924) contain a useful series of popular articles on Oriental Archæology by numerous experts.

Excavations.—The first German excavations in the East seem to have been those made in connection with the German Astronomical Mission that was sent to Persia to view the transit of Venus in 1874. Stolze, a member of the mission, which lasted four years, went to Takht-i-Jamshîd (Persepolis) in 1878 and took photographs of all the monuments at that place, and then went on to take photographs at Firuz-Abâd, Fasa and Dârâb. He made a photogrammetric plan of Persepolis, which is given in the three plans in the second volume of his work, *Persepolis; Die Achaemenidischen Denkmäler* (Berlin, 1882). On the doubtfulness of the value of the photographs, see Booth, *Trilingual Cuneiform Inscription*, p. 130. The Mission was directed by Dr. Andreas, who travelled over

many parts of southern Persia. In 1888, Colonel E. C. Ross, the British Resident at Bushire, told me of the existence of a series of mounds at a place called Samsâbâd (?), and said that they covered much ground, and must contain the remains of a large city. I visited them on March 11 of that year, in company with Captain Butterworth of the India Marine Service, and was told by Mr. C. J. Malcolm, who owned the site, that some German archæologist had excavated there by his consent for about two years, and had found a considerable number of small objects, and the lower parts of the walls of several large buildings made of bricks inscribed in cuneiform. He filled about 200 cases, it was said, with the results of his diggings; but as his funds were exhausted, and he was unable to pay the natives for the materials used, he was not allowed to remove the cases, a large number of which were stored in Mr. Malcolm's warehouses. Some of the Persian notables whom I saw at the Residency said that the name of the ancient city which was marked by the mounds at Samsâbâd was given in old Persian Itineraries; but they did not know what it was. What became of the cases of antiquities I know not.

In 1879–1880 Professor E. Sachau and certain German officials visited the principal ruins and ancient sites in Assyria and Babylonia, ostensibly with the view of making researches of a geographical character; but they seized the opportunity of conversing with the native dealers, and purchased from them collections of Babylonian tablets for the Royal Museum in Berlin. In 1887 the mounds of Surghûl and Al-Hibbah were excavated by Koldewey, Moritz and Meyer; and in 1902–1903 the mounds at Fârah were excavated by Koldewey, Andrae and Nöldeke.

In 1893 the Germans carried on excavations at Sinjirli, or Zinjirli, in the Valley of the Ḳara-Su; and close to the

gate of a Hittite fort they discovered a large stone stele, sculptured with a figure of Esarhaddon, King of Assyria (681–669 B.C.); on the reverse is a long cuneiform inscription which was published by Felix von Luschan (*Monolith des Asarhaddon*, Berlin, 1893). A monument inscribed in Phœnician letters and several small objects were found. On the buildings, see Otto Puchstein, *Boghazköi, die Bauwerke* (Leipzig, 1912).

In 1897 the German Government decided to undertake the excavations of ancient sites in Assyria and Babylonia, and despatched Sachau to Mesopotamia to report on the sites most suitable. Sachau travelled as far south as the Ḥayy River, and visited the scene of every antiquarian excavation; and when he returned, he reported favourably on several of the groups of ruins at Babylon, on the mounds on the north bank of the river Khâbûr, near its junction with the Euphrates, and on Ḳal'ah Sharḳât, *i.e.* the "city of Ashur." On March 26, 1899, Koldewey began work at Babylon; and excavations were carried on until 1912. Reports of progress made were published from time to time in the *Mitteilungen d. Deutsch. Orient. Gesellschaft;* and a full account of the discoveries made is given by Koldewey in his *Das Wiedererstehende Babylon* (Leipzig, 1913). Other publications of his are *Die Hethitische Inschrift* (Leipzig, 1900), *Die Pflastersteine von Aiburschabu* (1901), and *Die Tempel von Babylon* (1911). For the inscriptions, see Weissbach, *Babylonische Miscellen* (1903), Schrader's *Keilinschriftliche Bibliothek*, Vol. III. (Berlin, 1890), and Langdon, *Neubabylonische Königsinschriften* (Leipzig, 1912).

In 1902 it was said that His Majesty the Sulṭân had given the ruins and site of Ḳal'ah Sharḳât to the German Emperor William II as a personal gift; but whether this be so or not, the Germans began at once to excavate the

site of the "city of Ashur." Andrae was the Director of the work; and he and his colleagues dug through layer after layer of the mound with characteristic thoroughness and made many important discoveries. They found a splendid series of historical stone stelae, which were set up in the "high street," or "street called Straight," in honour of kings and high officials, and monuments of its earliest kings. See Andrae, *Die Stelenreihen in Assur* (Leipzig, 1913), Messerschmidt, *Keilschrifttexte aus Assur* (Leipzig, 1911), and Andrae, *Die Festungswerke von Assur* (Leipzig, 1913). A considerable number of inscribed clay tablets were found, and the publication of the texts in the volumes of the *Deutsch. Orient. Gesellschaft* is in progress; the editors are H. H. Figulla, E. F. Weidner and O. Weber. A large consignment of antiquities from the city of Ashur, and probably from other sites, packed in some hundreds of cases, was captured at sea during the War by a Portuguese vessel and taken to Lisbon, where, if rumour be correct, they were stored in the Customs House, and still are.

In 1906 Hugo Winckler was despatched on a mission to Boghaz Keui; and the excavations he made there were crowned with extraordinary success. He found literally thousands of tablets inscribed in cuneiform characters, some written in a language similar to that on the tablets of Arzawa (which some consider to be Indo-European in character), and others in a Semitic dialect. Among them were fragments of bilingual Hittite-Babylonian Vocabularies, some of which were published by Delitzsch in the *Abhandlungen* of the Berlin Academy for 1914. All these tablets belong to the period of the last two centuries of the supremacy of the Hittite kings who reigned at Boghaz Keui, and come to an end with the downfall of their power, about 1200 B.C. (?). A good description of Boghaz Keui and the work that has been done there will

be found in Garstang, *The Land of the Hittites* (London, 1910). This writer identifies the town with Pteria, where, according to Herodotus (I. 78), a battle between Cyrus and Crœsus was fought. Many scholars would include Hittite among the Indo-European languages; and the arguments in favour of this view are well set forth by F. Hrozny in *Die Lösung des Hethitischen Problems* in the *Mitteilungen d. Deutsch. Orient. Gesellschaft* for Dec. 1915, No. 56; *Die Sprache der Hethiter* (Leipzig, 1917); and *Hethitische Keilschrifttexte aus Boghazköi in Umschrift mit Uebersetzung und Kommentar* (Leipzig, 1919). For an excellent summary of the work done in connection with Hittite decipherment, see the *Tableau des Études Hittites*, in Contenau's *Éléments de Bibliographie Hittite* (Paris, 1922).

In 1912–1914 Max Freiherr von Oppenheim excavated the ruins at Tall Halaf. The ship carrying the cases filled with the results of his labours was captured by the British and taken into Alexandria, where its whole cargo was sold in the open market. The cases of antiquities were purchased by a British firm in Alexandria, and were subsequently sold to the Trustees of the British Museum, who have given Oppenheim every facility for writing his monograph on them. It is reported that during the War the Germans made unauthorized excavations at many places in Assyria, *e.g.* Ḳuyûnjiḳ and Samarrâ, and in Babylonia, *e.g.* Warka and Fârah, and that the natives employed by them were permitted to dig without any European supervision.

In connection with excavations, the exploration of Armenia by Waldemar Belck and F. F. K. Lehmann-Haupt in search of cuneiform inscriptions must be mentioned. It will be remembered that in 1826 F. E. Schulz, a Professor of the University of Giessen, was sent by the

French Government to Armenia to study the Van Inscriptions. He arrived at Van (Wân) in July 1827 and in a short time copied forty-two inscriptions, and later a trilingual inscription at Elvend, and sent duplicates of his copies to St. Martin in Paris, who intended to publish them, but was prevented by death from doing so. Schulz was murdered by the Kûrds in 1829, and his papers passed into the possession of Burnouf, who published the trilingual inscription on Mount Elvend and a Van inscription in his *Mémoire sur deux Inscriptions*, in 1836. Belck copied several Van inscriptions in 1891–1892; in 1898 he joined Lehmann-Haupt, and together they succeeded in collecting a large number of inscriptions in places where their existence had never been suspected. In their extensive travels they found and copied several important Assyrian inscriptions. The names of the places where they worked are given by Fossey, *Manuel d'Assyriologie* (Paris, 1904), p. 59 f.

Assyriology in Italy

The only Italian who seems to have taken any very active part in the controversies that raged between 1845 and 1855 about the decipherment of the cuneiform inscriptions was Philoxène Luzzato, who was born at Padua of Jewish parents in 1829, and died in 1855. He published the first part of a study of the Assyrian inscriptions entitled *Le Sanscritisme de la Langue Assyrienne* (Padoue, 1849), and a second, *Études sur les Inscriptions Assyriennes de Persepolis, Hamadan, Van, Khorsabad*, in 1850. His theory that Assyrian was an Indo-European language was, of course, wrong; but he deserves credit for having shown clearly that twenty-four of the signs in the Susian Version of the great Bihistûn Inscription corresponded with those in the Babylonian Version. Italian Assyriologists of a later generation are Bruto Teloni, who compiled a *Crestomazia*

Assira, con paradigmi grammaticali (Florence, 1887), and published a sketch of Assyrian Literature as one of the Manuali Hoepli (*Letteratura Assira*, Milan, 1903). Gerardo Meloni published copies of some Assyrian texts in the British Museum in the *Rivista* (Rome, 1911); and the Pontificio Istituto Biblico has published *Tabulae signorum cuneiformium in usum scholæ*, and *Textus cuneiformes in usum scholæ* (Rome, 1910). Antonius Deimel has edited a *Vocabularium Sumericum ad usum privatum auditorum* (Rome, 1910), and compiled an alphabetical list of Babylonian gods with the help of R. Panara, I. Patsch and N. Schneider (*Pantheon Babylonicum*, Rome, 1914). He has edited several other works for the Pontificio Istituto Biblico. Enrico Besta wrote *Le Leggi di Hammurabi e l'antico diritto Babilonese* (Torino, 1904); Biagio Bruci wrote *Le Leggi di Hammurabi* (Venice, 1902–1903). E. Bonavia published *The Flora of the Assyrian Monuments* (London, 1894), and wrote several papers on the fruits and sacred trees of Assyria in the *Bab. and Oriental Record*, 1888–1890. Giustino Boson contributed papers on the stones and metals mentioned in the cuneiform inscriptions in the *Rivista* (Rome, 1913–1916). To the same Journal (1908) G. Schiaparelli contributed the article *I primordi dell' astronomia presso i Babilonesi*.

Assyriology in Scandinavia, Finland, etc.

Knut Leonard Tallqvist has edited and translated the very important series of texts called *Maklu*, and published a dictionary of the proper names which are found on business documents from the time of Shamash-shum-ukin (668–648 B.C.) to Xerxes (485–465 B.C.) (*Neubabylonisches Namenbuch*, Helsingfors, 1906). He also edited and translated a number of Babylonian letters dealing with offerings (*Babylonische Schenkungsbriefe*, Helsingfors, 1891), and com-

piled a useful work on *Assyrian Personal Names* (Leipzig, 1914). H. Holma has edited Assyrian texts from tablets in the British Museum and written an interesting *Étude sur les Vocabulaires Sumériens-Accadiens-Hittites de Delitzsch* (Helsingfors, 1916), and discussed the Indo-European origin of the Hittite Language. His papers on Lexicography are very valuable. J. A. Knudtzon published a series of Assyrian Prayers to the Sun-god (*Assyrische Gebete an den Sonnengott*, Leipzig, 1893), and contributed papers to the *Zeit. für Ass.* on Semitic Grammar, the antiquities in Copenhagen, etc. One of the most important Assyriological books which has appeared in recent years is his edition in transliteration, with translation, of the Tall al-'Amârnah Letters (*Die El-Amarna-Tafeln*, Leipzig, 1915). This great work was unfinished when he died; and the Commentary and Vocabulary are the work of O. Weber and E. Ebeling. Knudtzon was probably the first to connect the language of the Arzawa Letters with the Indo-European group of languages. See his *Die zwei Arzawa-Briefe; Die ältesten Urkunden in Indogerm. Sprache* (with remarks by Bugge and Torp, Leipzig, 1902).

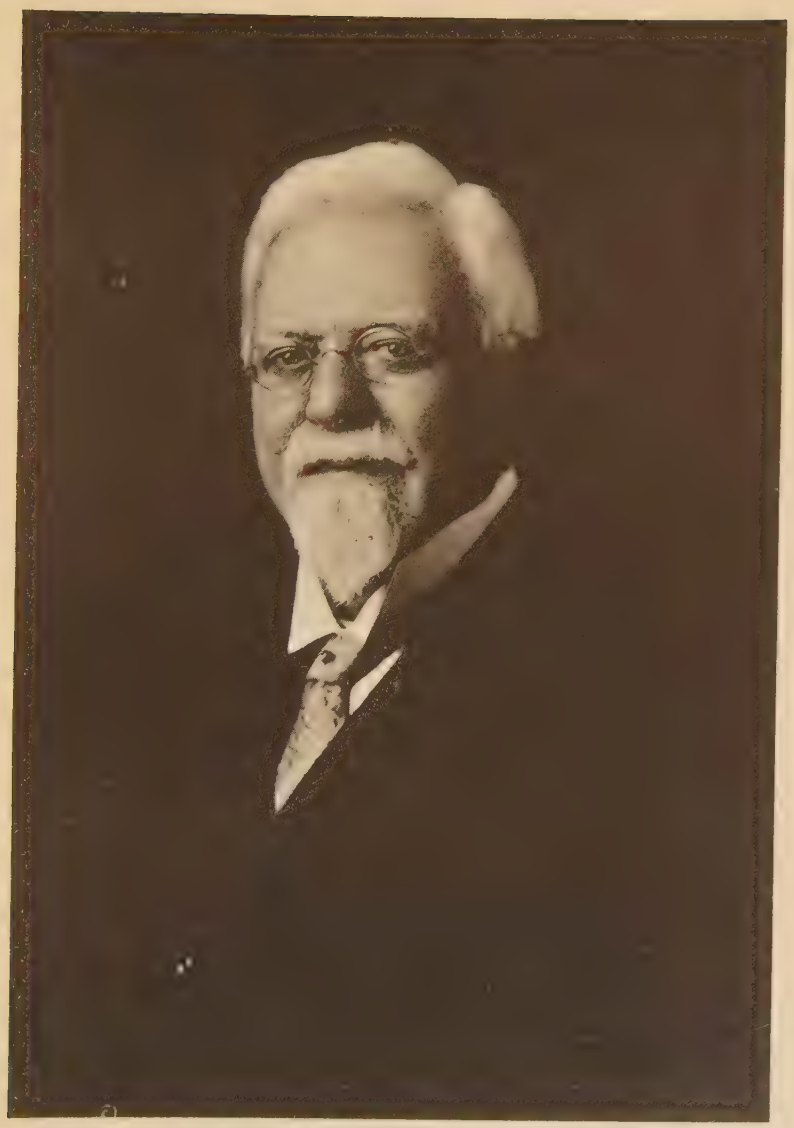
Assyriology in Holland

Holland cannot claim as a son any editor or translator of cuneiform texts on a large scale. Cnoop Koopmans wrote a dissertation on Sardanapalus (*Disputatio historico-critica de Sardanapalo*, Amsterdam, 1819). H. Kuyper published *Assyrië. De Assyrisch-Iranische mogendheid* (1250–500 J. v. Chr., Amsterdam, 1856). Franz M. Theodor Böhl has published an important work on the language of the Tall al-'Amârnah Letters and its relation to the Canaanite dialect (*Die Sprache der Amarnabriefe*, Leipzig, 1909). Cornelius Petrus Tiele (1830–1902) is famous

throughout the world for his works on Religion and History. He wrote the article Religions in the ninth edition of the *Encyclopædia Britannica*, and gave the Gifford Lectures at Edinburgh, 1896–1898. His views on the importance of Assyriology for the student of comparative religion are given in his *Die Assyriologie und ihre Ergebnisse* (Leipzig, 1878). His *Babylonisch-assyrische Geschichte* (Gotha, 1886–1888) was for many years the standard work on the subject, and his *Geschichte der Religion in Altertum* (Gotha, 1896–1898) is a rich mine of information for all students of the religions of the Assyrians, Egyptians, Persians, and other ancient Eastern nations. He also wrote a valuable work on the connection between the religions of the Semites and the religion of Egypt (*Histoire comparée des Anciennes Religions de l'Égypte et des peuples Sémitiques*, Paris, 1882).

Assyriology in America

There is evidence that the Semitic scholars in America between 1860 and 1870 took great interest in the decipherment of the cuneiform inscriptions by Rawlinson, and the publication of the texts which threw light on Bible History by him and Norris and George Smith. During the next ten years this interest increased; and when George Smith published the "Chaldean Account of the Deluge," it spread abroad among all the educated classes in America. Professors in Universities and Theological Colleges were well acquainted with the works of Schrader, and knew that Sayce had published an Assyrian Grammar and Delitzsch a Reading-Book of Assyrian (*Lesestücke*); and they felt that it was high time that some of their students should make themselves experts in the new science of Assyriology. In some quarters, the older American scholars were somewhat doubtful about the firmness of its foundations, and wished for further evidence before



Prof. David Gordon Lyon, the Father of American Assyriology.

they accepted the decipherment of the cuneiform inscriptions as an accomplished fact. There was no teacher of Assyrian in America, and no Professor of Assyrian in Cambridge or Oxford, for Sayce was not appointed until 1891; but Schrader had established a class for Assyrian, and Delitzsch, then a Privatdocent, was receiving pupils at Leipzig, and the Americans who wished to learn Assyrian were obliged to go to Germany to be taught. Among the first Americans who became students of Assyriology in Germany was David Gordon Lyon, who was born in 1852, at Benton, Alabama; and he is the "Father of Assyriology" in America. He studied under Delitzsch at Leipzig; and his first work was an edition of an inscription of Sargon II (722–705 B.C.), with translation and notes (*Keilschrifttexte Sargons*, Leipzig, 1883). This was followed by an *Assyrian Manual* (Chicago, 1886), which many students have found to be a clear and useful introduction to the Assyrian language. He has published a couple of volumes on the Harvard Excavations in Samaria (1924), and several papers in the *Journal* of the American Oriental Society on the Khammurabi Code, and on Semitic religions generally. He is an accomplished Oriental scholar; and his eminently sound judgment has helped his pupils greatly.

With the view of increasing the study of Assyrian in America, some of the Universities imported Assyriologists from Germany; and of these the best known were Hermann Vollrat Hilprecht, born 1859, and Paul Haupt, born at Görlitz in Germany in 1858. Hilprecht published *Old Babylonian Inscriptions, chiefly from Nippur* (1910), *Mathematical, Metrological and Chronological Texts from the Temple Library of Nippur* (1906), and was joint editor with A. T. Clay of *Business Documents of Marashu Sons of Nippur* (1898). He was one of the original members

of the E. W. Clark Archæological Mission to Mesopotamia, and wrote an account of the *Excavations in Assyria and Babylonia* (1904), and a description of the excavation of the temple of Enlil at Nippur (*Die Ausgrabungen . . . im Bel-Tempel zu Nippur*, Leipzig, 1903). His work, *The Excavations in Assyria and Babylonia* (1904), contains much valuable matter; but many of his deductions have been proved to be incorrect. He wrote a popular work entitled *Explorations in Bible Lands during the Nineteenth Century* (1903), which contained important notes by Benzinger, Hommel, Jensen and Steindorff. A volume of papers on Assyriology and Archæology by his "colleagues, friends and admirers" was presented to him on his fiftieth birthday (*Hilprecht Anniversary Volume*, Leipzig, 1909). From the time when the American Mission began to work at Nuffar (1887), serious differences of opinion on fundamental matters connected with the excavations existed between Hilprecht and John Punnett Peters, the Director of the Mission, and author of several papers on the Library and Palace of Nippur and on the excavations in general. Notwithstanding the great success which attended the labours of Peters and Haynes, Hilprecht claimed that, as the Assyriologist to the Mission, he should also be the Director. He succeeded in making good his contention; and from 1898 to 1900 he directed the works, with Haynes as his executive officer. The dispute between Hilprecht and Peters grew in intensity; and at length the Board of Trustees of the University of Pennsylvania set up a Committee to investigate the claims of the rivals. The Proceedings of this Committee and the supplementary documents, evidence and statement fill a volume of 357 pages, which was published at Philadelphia in 1908.

Paul Haupt took no part in the American excavations in Mesopotamia. He proceeded to the Ph.D. degree at

Leipzig in 1878, and was appointed Professor of Semitic Languages in Johns Hopkins University in 1883, which post, in addition to many other appointments, he has held ever since. He has edited and translated the text of a series of Sumerian Family Laws (*Familiengesetze*, Leipzig, 1879); and published the text of the Babylonian *Nimrodepos* (Leipzig, 1884–1891), together with papers on the same in Delitzsch's *Beiträge* (Leipzig, 1890); the *Cuneiform Account of the Deluge* (Chicago, 1883), and papers on passages of the same; a pamphlet on the *Akkadian Language* (Berlin, 1883); a paper on the XIIth Tablet of the *Nimrodepos* (in the *Beiträge* for 1890), etc. He edited the *Polychrome Bibel* (1898), and has written on such diverse subjects as *Biblical Love-ditties* (1902), *Jonah's Whale* (1907), the *Aryan Ancestry of Jesus* (1909), the *Burning Bush* (1910), *Tobit's Blindness and Sara's Hysteria* (1921), and *Manna, Nectar and Ambrosia* (1922). It is stated that he has written more than 400 papers on matters relating to the Bible and Assyriology.

American Excavations in Mesopotamia.—Having appointed an Assyriologist, Dr. Lyon, to be Hollis Professor of Theology at Harvard in 1882, and Haupt Professor of Semitic Languages at Johns Hopkins University in 1883, the Americans felt that it was high time they began to make excavations in Mesopotamia, and to form collections of cuneiform tablets and other antiquities for the use of the students in their Universities. Thanks to the liberality of Miss Wolfe, Messrs. Hayes Ward, J. R. S. Sterrett and J. H. Haynes were despatched to Mesopotamia in 1884 to select a site or sites where the Americans could begin to work. The Mission seems to have decided that as all the large ruins in Assyria had been cleared out by the French and English, they must turn their attention to Babylonia; and subsequent events proved it was very

fortunate that they did so. They paid visits to Babylon and all the sites in the neighbourhood, and then went to the south and examined the sites that had been excavated by Loftus and Taylor, and all the mounds that, according to the natives, contained antiquities. It is surprising that they did not decide to clear out Abû Ḥabbah, only about one-third of which had at that time been worked through, and still more surprising that they did not decide to excavate the mounds of Al-Uḥêmar, which mark the site of Kish, where Prof. Langdon has recently made such important discoveries (see *The Times* of June 27, 1924, and Jan. 7, 1925). The Mission returned to America and reported; and finally, the Trustees of the University of Pennsylvania decided to excavate the mounds called by the natives Niffar and Nuffar, which mark the site of the ancient city of Nippur. This great and important city, nearly 100 miles south of Babylon, stood on the banks of the canal called Shaṭṭ an-Nîl, which took off from the Euphrates near Babylon; and the modern city which was built close by continued to flourish for some centuries after the Arabs conquered the Persians and became masters of the country. Its decay was brought about by the failure of the Arabs to maintain the old canal system in the country.

Funds for the work were found without difficulty, Mr. E. W. Clark, the banker, being one of the most generous contributors. Peters was made Director of the Expedition; and, accompanied by Hilprecht, Harper, J. Dyneley Prince, and Haynes, he began in 1889 to dig at Niffar daily. In April he was obliged to stop work because of the hostility of the Arabs, who went so far as to burn his camp; but over 2000 tablets had been found, besides many objects dating from the beginning of the third millennium B.C. Work was resumed by Peters and Haynes

in 1890, and about 8000 tablets were found. In April 1893 Haynes returned to Niffar, and continued the work until February 1896. J. A. Meyer, the architect, stayed with him for a few months; but the rest of the time he had no European with him. During this period of more than thirty-two months Haynes discovered about 20,000 tablets, and visited many ancient sites which were not, and still are not, marked on any map, and made a large collection of miscellaneous antiquities. To live in the open desert in Babylonia for thirty-two consecutive months is a wonderful feat of physical endurance, for the midday heats and the midnight frosts are really terrible things for sapping the vitality of a man. In 1898 Hilprecht was made Director of Excavations; and Haynes continued the work, which he had left unfinished when he returned to America in 1896. He was rewarded by the discovery of the Library of the temple of Enlil, which contained 23,000 tablets belonging to the period 2700–2100 B.C. In 1900 he made an examination of the mounds of Abû Ḥatab, which mark the site of KISARRA, and Fârah, the ancient SHURUPPAK, and found at the latter place many objects, including a number of inscribed shells, which prove that the old city was a flourishing centre, probably before 3000 B.C. From the excavations at Niffar the University of Pennsylvania acquired over 50,000 tablets and many miscellaneous antiquities of all periods. This splendid result was due chiefly to the devotion and unceasing toil of J. H. Haynes, whose sole object was to secure antiquities for Philadelphia. Though neither an Assyriologist nor an expert archæologist, for he was only attached to the Expedition as a photographer, all Assyriologists who study the texts found by him at Niffar owe him a debt of gratitude. Let us thank him, and honour his memory. For full accounts of the work done at Niffar, see Peters, *Nippur: the Narrative*

of the University of Pennsylvania Expedition to Babylonia in the years 1888–1890 (New York, 1897, 2 vols.), and papers by him in the *Journal* of the American Oriental Society, 1905, and the *American Journal of Archæology*, 1895; Hilprecht, *The Excavations in Assyria and Babylonia* (Philadelphia, 1904). The most important work on Nippur that has yet appeared is *Excavations at Nippur, Plans, Details and Photographs of the Building*, etc., *with descriptive text by* Clarence S. Fisher (Philadelphia, 1905–1906).

In 1922 the Trustees of the British Museum and the Trustees of the Museum of the University of Pennsylvania at Philadelphia made an arrangement to excavate jointly those parts of the ruins of "Ur of the Chaldees" which had been left untouched by previous excavators (Taylor in 1854, Haynes in 1891 and Hall in 1919–1920), and the Sumerian temple at Tall al-'Ubêd discovered by Hall, and other sites. An expedition was sent out in the autumn of 1922 with C. L. Woolley as Director, Sidney Smith of the British Museum as Assyriologist, and F. G. Newton, the distinguished architect, whose recent death in Upper Egypt we all deplore. The expedition continued the work, with C. J. Gadd of the British Museum as Assyriologist, in the winter of 1923–1924, and again in the winter of 1924–1925 with Léon Legrain as Assyriologist. The scientific journals in which both Hall and Woolley have published reports on the work are mentioned elsewhere (see p. 147). Articles on last season's work by Legrain will be found in the *Journal* of the Philadelphia Museum for 1924 and in *The Times* for Jan. 7 and Feb. 4, 1925. It is greatly to be wished that the British Museum published a *Journal* in which its Assyriologists could tell us something about the inscriptions, and give translations of the most important of them.

In 1903 the University of Chicago decided to excavate

the mounds at Bismâya (spelling doubtful), in Babylonia, which mark the site of the ancient city of Adab. Edgar James Banks (born 1866), American Consul at Baghdâd 1897–1898, was appointed to carry out the work; and he began to dig in December 1903, and continued his excavations throughout the year 1904; he has published an account of his work in *Bismya: or, The Lost City of Adab; A story of excavation among the ruins of the oldest of the buried cities of Babylonia* (New York, 1912). Banks has published articles on "The Bismya Temple, Stone and Terra-cotta Vases from Bismya," and "The Oldest Statue in the World," in the American *Journal of Semitic Languages*, 1904–1906; but I cannot find that any publication of the inscriptions which he found at that place has been issued. The "oldest (*sic*) statue in the world" is the standing figure of Esar, King of Adab, which Ḥamdî Bey showed me in the Museum at Constantinople in 1906. It is not by any means the oldest statue in the world, for it cannot be older than the dynasty of Ur-Ninâ (3000–2700 B.C.). Many other early, important antiquities must have been found with this statue, and it is high time that they were described and published, especially the "several thousand inscribed objects (tablets?) from 4500 to 2800 B.C.," which are mentioned in Banks's biography, given in *Who's Who in America*, Vol. XIII. p. 303. Banks has published a selection of Babylonian Hymns from the Berlin Collection (1897), *The Bible and the Spade* (1913), and "several hundred articles on archæology," etc.

By the end of the nineteenth century there were collections of Babylonian tablets in many institutions in America; for from 1884 onwards the dealers in Baghdâd and London have regarded the American market for antiquities as more important than the British. The largest collection was of course in Philadelphia, in the Museum of the University

of Pennsylvania; for it included more than 50,000 tablets from Niffar, and the collections bought from Shêmṭôb and Khabbaza and other dealers in London and Baghdâd (see Peters, *Nippur*, Vol. I. p. 297). The Trustees of the University of Pennsylvania have pursued a policy similar to that of the Trustees of the British Museum; they undertook excavations for scientific purposes, and they bought collections of tablets in the open market whenever there was an opportunity. As soon as the results of their Niffar excavations arrived in America, they and the Director of their Museum in Philadelphia decided to publish the texts of the most important documents as quickly as possible, so that students, not only in America but all over the world, might have new material upon which to work. Their first editor was H. V. Hilprecht, who published two parts of *Old Babylonian Inscriptions* in 1893–1896, which are now out of print. His work was delayed through his desire to translate the texts which he was publishing; this he found to be impossible, for at that time no man living could do so. To this day Assyriologists publish texts, the meanings of parts of which are unknown to them. Hilprecht's work was followed almost yearly by a volume of texts edited by some scholar; and the twenty-five volumes of cuneiform texts which have appeared since 1904 form a Babylonian Library which no Assyriologist can do without.

The Assyriologists who edited the volumes were: G. A. Barton (N.S. Vol. IX., No. 1); E. Chiera (N.S. Vol. VIII., Nos. 1 and 2; Vol. XI., Nos. 1–3); A. T. Clay (A. Vols. VIII., X., XIV., XV., N.S. Vol. II., Nos. 1 and 2); H. V. Hilprecht (A. Vols. I., XX.); Hilprecht and Clay (A, Vol. IX.); W. J. Hinke, S. Langdon (N.S. Vols. X., XII., No. 1); L. Legrain (N.S. Vol. XIII.); H. F. Lutz (N.S. Vol. I., No. 2); J. A. Montgomery (N.S.

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Dr. George Byron Gordon, Director of the Museum at Philadelphia of the University of Pennsylvania.

Vol. III.); D. W. Myhrman (A. Vol. III., N.S. Vol. I., No. 1); A. Poebel (A. Vol. VI., No. 2, N.S. Vol. IV., No. 1, Vol. V., Vol. VI., No. 1); H. Radau (A. Vols. XVII. and XXIX).; H. Ranke (A. Vol. VI., Pt. 1), and A. Ungnad (N.S. Vol. VII.).

The present Director of the Philadelphia Museum, George Byron Gordon (born 1870), is a Doctor of Science of Harvard and a trained anthropologist, and was the Director of the University of Harvard Expedition to Central America, 1896–1900. He has published authoritative works on the *Prehistoric Ruins of Copan* (1896), *The Caverns of Copan* (1898), and *The Hieroglyphic Stairway at Copan* (1902), *The Serpent Motive in Ancient Art* (1906), the *Book of Chilam Balam of Chumayel* (1913), a study on *Baalbek* (1919), and works on the *Walls of Constantinople* (1921) and *Ancient London* (1923). He was appointed Director of the Philadelphia Museum in 1910, and has continued the good work of publishing cuneiform texts begun by his predecessor. This was not interrupted during the Great War, for volumes appeared in 1914, 1915, 1916, 1917 and 1919. He has taken an active part in arranging for the joint Pennsylvania and British Museum Expedition to Mesopotamia; and his understanding, foresight, tact and sympathy have contributed largely to its success.

Among the earliest American Assyriologists who published original work must be mentioned :—

Robert Francis Harper (died Aug. 5, 1914) who will be best remembered as the editor of the great collection of the *Assyrian and Babylonian Letters of the Ḳuyûnjiḳ Collection of the British Museum* (Chicago, 1892–1914, Vols. I.–XIV.). The British Museum authorities placed the whole collection of letters at his disposal, and for many years he copied and recopied the texts of them with

extraordinary zeal and diligence; and his edition of them is the largest text publication carried out by any one American scholar. He intended to publish translations of the letters with copious notes; but death struck him down when he was reading the proofs of Vol. XIII. It is very satisfactory to know that the translations have been made by his friend and pupil, Prof. LEROY WATERMAN, whose work is now in the press. A set of plates illustrating the palæography of Babylonian and Assyrian letters of all periods is to accompany the translations. Harper also edited the text of the *Code of Hammurabi, King of Babylon, about 2250* B.C. (Chicago, 1904). He also wrote several papers on Assyriological matters, some of them in collaboration with A. H. GODBEY, who assisted in autographing the text of the Code.

ROBERT WILLIAM ROGERS (born 1864) has published inscriptions of Esarhaddon (1889) and Sennacherib (1893), with translations; *Lectures on the Religion of Babylonia and Assyria* (1908); *Outlines of the History of Early Babylonia* (1895), and many works of a theological character. His *Cuneiform Parallels* (New York, 1912) is an instructive book; but his most important work is his *History of Babylon and Assyria* (New York, 1915), which has reached its sixth edition. It is well planned, and the facts are stated clearly; its tone is moderate, and unproven theories are dealt with fairly. The *History of Assyria*, by A. T. Olmstead (New York, 1923), contains, naturally, much newer information, and many additional facts (especially those derived from Waterman's translations of Assyrian letters), which are not to be found in the work of Rogers. The success of Rogers's *History* is probably due to its literary style, which has made it acceptable to readers generally, both in America and England. A good Appendix would enable it to continue to hold the position which

it has held for many years as the standard American work on the history of Babylonia and Assyria.

Samuel Alden Smith, a pupil of Delitzsch, had considerable skill in copying cuneiform texts; and he worked steadily for several months in the British Museum. He published *Miscellaneous Assyrian Texts* (Leipzig, 1887), and some Assyrian Letters in the *Proceedings* of the Society of Biblical Archæology, and in the *Verhandlungen* of the Seventh Oriental Congress (1888). Delitzsch availed himself of his services in collating many texts, but refused to regard his *Thesis* as deserving the Ph.D. degree. Smith's chagrin and disappointment were great; and he avenged himself by writing hostile criticism on the three parts of Delitzsch's *Wörterbuch*, entitled *Why that Dictionary ought not to have been Published*. He left England vowing that he would never again look at an Assyrian text; this was unfortunate, for he had learned to copy with very considerable accuracy.

Albert Tobias Clay (born 1866) was appointed Laffan Professor of Assyrian and Babylonian Literature at Yale University in 1910. He and Hilprecht edited *Business Documents of Murashu Sons of Nippur* (1898); and Clay was sole editor of a volume of the documents of the same firm in 1904, and of two volumes of the *Temple Archives of Nippur* (1906), and of a volume of *Legal and Commercial Transactions* (1908). He has also edited volumes of texts from tablets in the Pierpont Morgan Collection, and miscellaneous Babylonian inscriptions in the Yale Collection. He has written on the Legend of the Flood, on an old Version of the Gilgamish Epic, the Origin of Biblical Traditions, the inscriptions of Nebuchadnezzar, Narâm-Sin (1914), etc. He has rendered great and good service to Assyriology by his publication of texts. His work *Amurru: the Home of the Northern Semites* (Philadelphia, 1909), shows research and learning; and in my opinion

he is correct in his view that the religion of Israel is not of Babylonian origin. The similarities in the beliefs held by both Hebrews and Babylonians are due to the fact that such beliefs were common to all the Semitic peoples of antiquity; and Clay has made a gallant stand against the assertions of Continental scholars to the contrary. But few Assyriologists will, I think, accept his view that Babylonian legends written in Babylonian were derived from Hebrew originals. This is not the place to discuss his theories on the Amurru Question *seriatim;* and the reader is referred, for a clear and honest statement of his views, to his paper *The Antiquity of Amorite Civilization* (New Haven, Conn., 1924, privately printed). This pamphlet contains an *Answer* to Prof. Barton's criticism of his work which was read before the American Oriental Society. It shows that the views of these two scholars differ fundamentally, and that the deductions made by each from the facts derived from the cuneiform inscriptions are in most cases absolutely contradictory. It is clear from it that Clay's scholarly equipment and his mastery of facts are superior to those of his opponent.

Leroy Waterman (born 1875) was appointed Professor of Semitics in the University of Michigan in 1915. He has published *Some Kouyûnjik Letters and related Texts* (Chicago, 1912), and an interesting series of *Business Documents of the Hammurabi Period* (Chicago, 1913). He assisted F. R. Harper in preparing the manuscript of some of the later volumes of his *Assyrian Letters*, and collated texts and verified passages when his health began to fail. After Harper's death he edited Vol. XIV. of *Assyrian Letters;* and he has spent several years in translating the letters that Harper published. His translations of these will appear in his *Correspondence of the Assyrian Kings*, as one of the volumes of the *Humanistic Studies* of the

Prof. Albert Tobias Clay.

1866 —

1875 — Prof. Leroy Waterman.

University of Michigan. With characteristic kindness he lent the manuscript of this work to Olmstead, who rightly says, in the preface to his *History of Assyria*, "To no other scholar does the book owe so much." Waterman's work is of a solid and enduring type.

Other American Assyriologists and writers on Assyriology, the names being arranged alphabetically, are :—

Cyrus Adler (born 1863) has written several articles on Oriental archæology and on Babylonian eschatology. G. A. Barton (born 1859) has edited texts for the Philadelphia Museum (1915), catalogued the Tall-Loh tablets in the Haverford Library (1907), discussed the Blau sculptured tablets in the British Museum, and written several papers on Babylonian and Assyrian Archæology. He has published *Archæology and the Bible* (Philadelphia, 1916), and a useful work on *The Origin and Development of Babylonian Writing* (Leipzig, 1913), the *Religion of Israel*, and a valuable work on Semitic Origins. Lester Breidner has published papers on Assyrian syntax. Francis Brown has dealt with the use of Assyriology in Old Testament study (*Assyriology*, New York, 1885). Edward Chiera has edited texts from Niffar and compiled lists of personal names. J. A. Craig has edited *Religious Texts* (Leipzig, 1895–1897), and *Astrological-Astronomical Texts* (Leipzig, 1899), from tablets in the British Museum. A. H. Godbey has written papers on the Code of Khammurabi and the script in which it is written; and he assisted Harper in preparing his edition of the text. Clifton Daggett Gray (born 1874) has published a series of *Shamash Religious Texts* (Chicago, 1901) from tablets in the British Museum Collection. W. J. Hinke (born 1871, naturalized 1897) has edited a *Boundary-Stone of Nebuchadnezzar I from Nippur* (1907), and a series of *Kudurru Inscriptions* (Leyden, 1911). The American lady, Mary Inda Hussey, has

edited and translated two important volumes of Sumerian texts, and a series of Sumerian-Babylonian Hymns (1907), and compiled a short *Supplement* to Brünnow's *Classified List* (1901). Morris Jastrow edited few texts, but wrote voluminously on Sumerian Myths, Babylonian omens and magic, Assyrian History in relation to the Bible, Hebrew Legends, etc. His most important book was *The Religion of Babylonia and Assyria* (Boston, 1898); his supplementary work, *Bildermappe mit 273 Abbildungen* (Giessen, 1912), is a very useful and interesting compilation. Christopher Johnston wrote several short papers on Assyrian fables, letters, lexicography, etc. D. D. Luckenbill (born 1881) has written several short papers on Babylonian and Assyrian subjects, Babylonian letters, Babylonian temples and their women, and has published a *Corpus* of the Inscriptions of Sennacherib (1924). Kerr Duncan Macmillan (born 1871) has published a series of texts bearing on the *Religion of Babylonia and Assyria* (Leipzig, 1906). Theophilus James Meek (born 1881) has edited and translated *Cuneiform Bilingual Hymns*, etc. (Leipzig, 1913), a *Hymn to Ishtar* (Chicago, 1910), and *Old Babylonian Documents in the R.F.H. Collection* (Chicago, 1917). James Alan Montgomery (born 1866) has published *Aramaic Incantation Texts from Nippur* (Philadelphia, 1913). The American lady, Mary Williams Montgomery, edited some letters of the time of Khammurabi (Leipzig, 1901). W. Muss-Arnolt has compiled an *Assyrian-English-German Dictionary* (1906, two vols.), and made many useful contributions to Assyrian Lexicography. D. W. Myhrman has published *Babylonian Hymns and Prayers* (Philadelphia, 1911), and edited the spells and incantations against the Devil-woman Labartu (Leipzig, 1902). Albert Ten Eyck Olmstead (born 1880) has written *Assyrian Historiography* (Columbia,

1916), the *Assyrian Chronicle* (New Haven, 1915), *Western Asia in the Days of Sargon* (1908), and a *History of Assyria* (1923). Ira Maurice Price (born 1856), a great Hebrew scholar, has published papers on cylinder-seals, Assyrian writing, etc. His most important work is his edition of the texts of the Gudea cylinders A and B, with translations, etc. (*The Great Cylinder Inscriptions*, Leipzig, 1899). John Dyneley Prince (born 1868) has published a large number of papers on Assyrian subjects, chiefly of a religious character. Hugo Radau has edited a volume of *Sumerian Hymns and Prayers to the God Nin-ib* (Philadelphia, 1911); a selection of *Sumerian Texts from Nippur* (1909); *Letters to Kassite Kings* (Philadelphia, 1908); and written *Early Babylonian History down to the End of the IVth Dynasty of Ur* (New York, 1900). J. H. Stevenson has published a series of *Assyrian and Babylonian Contracts, with Aramaic Reference Notes* (New York, 1902). Olaf Alfred Toffteen compiled a *Geographical List* to Harper's *Letters*, Vols. I.–VIII. (Chicago, 1905), and has written *Researches in Assyrian and Babylonian Geography* (Chicago, 1908), etc. F. A. Vanderburgh has published a series of *Sumerian Hymns*, with translations, etc. (New York, 1908), *Tammuz Lamentations* (Chicago, 1911), a *Hymn to Bêl* (New Haven, 1909), etc. William Hayes Ward has rendered signal services to Babylonian and Assyrian Archæology. He was a prominent member of the Wolfe Expedition to Mesopotamia, and, according to statements made to me by natives in Baghdâd, acquired a valuable collection of tablets for the Philadelphia Museum. Though not an Assyriologist in the philological sense of the word, he has written several very useful papers on Babylonian and Hittite cylinder-seals and gems, and on many subjects about which the student of the cuneiform inscriptions does not usually trouble himself. He has devoted his time and money to

the investigation of the archæological problems of all the branches of Assyriology; and American Assyriologists owe much to his shrewdness and energy.

The Americans began their excavations in Babylonia in 1889, and in about thirty-five years they have succeeded in providing the Museums of many of their Universities with large collections of Babylonian tablets, and in publishing many volumes of cuneiform texts. They were fortunate in having Babylonia for the field of their labours, because it enabled them to acquire whole libraries of tablets formed by the earliest known inhabitants of the country, viz. the Sumerians and Babylonians. They have established Professors of Assyriology in many of their Universities and Colleges, and have provided them in abundance with rich and varied material for their personal study, and the instruction of their pupils. Would-be students of Assyriology have now no need to leave America for tuition or for material on which to work. All this has been made possible by the generous gifts and benefactions of wealthy citizens, who have endowed the Universities and Directors of Archæological Missions with funds adequate for the performance of their works in a satisfactory manner. The Americans learnt their first lesson in Assyrian from the Germans; but they have developed their studies on their own native lines. The Trustees of the great American Universities have employed in their work methods that closely resemble those of the Trustees of the British Museum; and this was to be expected. But they have worked faster and on a bigger scale than their British colleagues because, unlike them, they were not hampered at every turn by the want of money.

XVII.—THE PASSING OF THE SOCIETY OF BIBLICAL ARCHÆOLOGY

The volumes of Rawlinson's *Selection from the Cuneiform Inscriptions of Western Asia* were admirable storehouses of texts; but when two of them had appeared, students of the history and languages of Egypt and Assyria and the neighbouring countries felt acutely the want of an organ in which they could publish translations of texts, and papers on the Archæology of the Near East. There were two learned Societies whose Councils might have printed communications of the kind in their *Journals*, viz. the Royal Asiatic Society, and the Society of Antiquaries of London. But the former was supposed to deal primarily with the history of India, Persia and China; and the latter was more interested in British antiquities and ecclesiology than in the recently deciphered inscriptions of Assyria, Babylonia and Egypt. Apart from these facts, the methods of publication followed by each Society were slow and antiquated; and it was no uncommon thing for two and even three years to elapse between the reading of a paper before either Society and its publication. The Syro-Phœnician Society, whose *Journal* might have served the purposes of a home for the papers of students of Egyptian and Assyrian, for want of funds had come to an end, though many papers suitable for its publications were available. The need for a new Society was keenly felt; and Birch consulted with Rawlinson and Fox Talbot about the formation of one. They welcomed warmly Birch's suggestion as to the character and scope of his proposed Society and promised to assist him with their advice and money. Birch then invited a number of gentlemen interested in the history and languages of the Near East to meet him in the private rooms of Mr. Joseph Bonomi at the Soane Museum in Lincoln's Inn Fields on the

18th of November, 1870, and laid his views before them. They were approved unanimously; and it was resolved to convene a Meeting at the rooms of the Royal Society of Literature on the 9th of December, and to place them before the public. At this Meeting it was proposed to found a Society to investigate the Archæology, Chronology, Geography and History of Assyria, Arabia, Egypt, Palestine and neighbouring countries, and to record discoveries in them. The title to be given to the new Society was the subject of a keen discussion; but when Birch proposed that it should be called "The Society of Biblical Archæology," those present at the meeting saw that, with his usual shrewdness, he had solved the problem, and accepted his suggestion without further argument. The invention of this title was a stroke of genius; for it appealed not only to philologists, but to theologians of all shades of thought. A strong Committee or Council was elected from among those present; and so the Society of Biblical Archæology, with W. R. Cooper as Secretary, came into being. Then Birch set to work to obtain papers for the first volume of its *Transactions*, which appeared in December 1872; and among the contributors of papers were Fox Talbot, Sayce, George Smith, and de Saulcy, the Assyriologists; Birch, Chabas and Eisenlohr, the Egyptologists; the Rabbi Schiller Szinessy; S. Drach, the astronomer; Hamilton Lang, the excavator of Cyprus; J. W. Bosanquet, Biblical chronologer; W. Simpson, the topographer of Jerusalem; and B. G. Jenkins, an authority on the Moabite Stone. In succeeding volumes of the *Transactions* many valuable papers were published, including those by George Smith on the Legends of the Creation and the Flood; and the languages treated of included Assyrian, Egyptian, Coptic, Hebrew, Phœnician, Palmyrene, and Himyaritic, the texts being printed in Oriental types. Birch acted as the general

editor, and was assisted by W. R. Cooper, the Secretary. Birch read through every paper before sending it to the printer, and insisted that any criticism of one scholar by another should be expressed in temperate language. The discussions at the monthly meetings in Conduit Street were sometimes extremely lively, and chronologers and philologists, and Jews and Christians, said hard things about each other without let or hindrance; but none of these appeared in their papers when published. Birch was strictly just to every contributor but himself. The Society grew and flourished, members enrolled themselves in scores, and the *Transactions* were held to possess an almost official authority, thanks both to Birch's position and his learning and impartiality.

In November 1878 W. R. Cooper died at Ventnor, and W. H. Rylands succeeded him as Secretary. A year or two later, contributors to the *Transactions* of the Society complained that the publication of their papers was unduly delayed; and the Council decided to publish all short papers offered to them in *Proceedings*, which were to be issued monthly, and the longer communications were to be reserved for the *Transactions*. Little by little the numbers of the *Proceedings* increased in size, and the tenth volume contained as many as 578 pages; the cost of printing the *Transactions* and *Proceedings* strained the resources of the Society considerably. The expenses of the Society increased in other directions also. New rooms were rented in Hart Street, Bloomsbury, and an honorarium was paid to the Secretary annually; the first Secretary, W. R. Cooper, had served without payment. After the death of Birch in December 1885, the editorship of the *Proceedings* was conducted less carefully; and writers of papers, *e.g.*, Ball and Bezold, were allowed to attack each other in its pages. An immediate result was that several of the most frequent

contributors ceased to write papers for the Society; and the scientific value of its publications was lessened, though their bulk increased, and the cost of printing them also. The Council added to the honorarium of the Secretary from time to time; and at length it was found that it and the rent of the rooms, and minor expenses, such as fire, light, cleaning, postage, etc., absorbed more than two-thirds of the income of the Society, which was also considerably in debt to the printers. Some members of the Council gave special donations earmarked for certain purposes, and others paid for the printing of their own contributions to the *Proceedings* and *Transactions*, but it was clear that other steps would have to be taken to set the Society on a sound financial basis, especially as the number of candidates for admission to the Society was decreasing.

When matters were thus, Dr. W. L. Nash, a good business man, took over the Secretaryship; and under his skilful handling the Society paid its debt to the printers, and managed to publish its *Proceedings* for several years. The Society removed to less expensive rooms in Great Russell Street, and Dr. Nash controlled the expenditure with a firm hand; his service was given gratuitously. But not even he could restore the Society to the flourishing condition which it enjoyed during the last years of Birch's life. The contributors who had supplied the papers which made it a power in the world of Oriental archæology were either dead or alienated. At length, when Dr. Nash was far advanced in years, some members of the Council, feeling that it was impossible to resuscitate the Society, and knowing that they had no funds wherewith to pay a new Secretary, even if a suitable man could be found, proposed that application should be made to the Royal Asiatic Society for union with it. The proposal was carried; and in due course the Society of Biblical Archæology was absorbed into the

Royal Asiatic Society of Great Britain and Ireland, and its members were admitted into the older Society under a special arrangement as to their subscriptions. The Society of Biblical Archæology published nine volumes of *Transactions* and forty volumes of *Proceedings;* and the length of its life was fifty years. During that period it did more to promote and stimulate the interest of the general public in the archæology and history of "Bible Lands" than any other Learned Society in the country. Its miscellaneous papers were welcomed by a large circle of readers of all kinds; and many specialists found its volumes to be real mines of information. Its decease is to be regretted, especially by Assyriologists, for it has left them without a publication in which their particular science would always receive special recognition.

XVIII.—MISCELLANEOUS OBSERVATIONS

The reader has now before him all the principal facts that I have been able to collect about the beginnings of Assyriology, together with a short general account of its establishment as a science. Those who take the trouble to examine the facts will see that, whilst many scholars between 1780 and 1836 worked at the decipherment of the cuneiform inscriptions, both trilingual and unilingual, copied and published by Niebuhr, Rawlinson alone worked at the trilingual inscription of Darius I at Bihistûn, for the simple reason that, between 1837 and 1846, he alone had a copy of it. And it is clear that his claim to be the first to decipher and translate the inscription—which is all that he himself ever claimed in respect of cuneiform decipherment—is just. The science of Assyriology is still young; but it is difficult to realize that about sixty-five years ago it did not exist. The amount of information about the peoples and countries

of Western Asia in ancient days which it has placed at our disposal is enormous; and it has opened up sources of information, the existence of which was never dreamed of by the ablest scholars. And it has revealed to us the fact that Anzanites, Sumerians, Babylonians, Assyrians, Mitanians, Hittites, Cappadocians, and the peoples of Syria all used a system of writing, the fundamental element of which is the wedge.

From the time of Niebuhr until about 1850 the decipherment of the cuneiform inscriptions was a subject in which Academies and other learned bodies, and individual scholars, took a profound interest; but the public in general, even the well-informed portion of it, cared very little about the matter. In the 'forties, when the news of the discoveries of Botta and Layard was given to the world, public opinion began to rouse itself, because Longperrier showed (1845) that the palaces excavated by Botta were built by Sargon, and Hincks deciphered (1849) the names of Sennacherib and Esarhaddon in inscriptions which Layard had brought home from Nineveh. People began to say, "Is it possible that these Assyrian sculptures can tell us about Sargon, who besieged Ashdod (Isaiah xx. 1), and Sennacherib, who was murdered by his sons (2 Kings xix. 37), and Esarhaddon, who succeeded him?" When Rawlinson, a little later (1851), published the fact that he and Hincks had identified the names of Menahem (2 Kings xv. 14), King of Samaria, and "Jehu, the son of Omri," and that he had read an account of the capture of Hezekiah and his city of Jerusalem by Sennacherib in an inscription copied from a colossal "bull" at Nineveh, scholars and the unlettered alike clamoured for fuller information. In the decipherment pure and simple, and in the discussions by experts of philological *minutiæ*, they took no interest; but when the translations of the Assyrian monuments were able to tell

them facts about Bible personages, or supply information which would supplement the Bible narrative, Assyriology assumed a vital importance in their eyes. The works of Layard and Vaux were read eagerly by all classes, and the public thirsted for more books of their kind; but alas, there was no one to write them. Hincks never attempted to write popular works on Assyriology; and Rawlinson and Norris were far too busy in preparing cuneiform texts for publication to summarize their results for popular consumption.

But among the thousands of readers of Layard's work was one who was destined, some twenty years later, to rouse the interest of the public in Assyriology to a very high pitch of excitement, and to prove once and for all its importance for the study of the Bible. This reader was George Smith, who devoured the contents of every book and paper on any and every branch of the new science that he could lay his hands on; and the mainspring of his eagerness to study it was his fervent desire to know more about the historical books of the Old Testament. When he entered the service of the Trustees of the British Museum, he very soon made himself master of the art of copying texts and of as much Semitic philology as was necessary to enable him to read and translate the inscriptions. He then began to search for texts relating to the kings of Assyria mentioned in the Bible, and he copied all he found. He spent several years in copying and translating the Annals of Ashurbanipal, whose name is mentioned once under the form of "Asnapper" in the Bible (Ezra iv. 10), because they contained new and authentic information about a king of whom Biblical scholars knew very little. In seeking historical texts, he found the fragments of the Gilgamish Legends, among them being the Assyrian story of the Flood; but it was not until all the fragments of the tablets were cleaned that he was

able to construct anything like a connected narrative. The news of Smith's discovery of the Story of the Flood leaked out; and to satisfy the demands of the Press and the public generally Birch arranged for him to read a paper on the subject before the Society of Biblical Archæology (see above, p. 112). It was not Smith's great philological triumph, or admiration for his skill as a decipherer or translator, that drew the crowd to the meeting, but their intense desire to find out what new light the tablets from Nineveh had thrown on the Bible. Similarly, it was not admiration for the science of Assyriology that induced the proprietors of the *Daily Telegraph* to spend one thousand guineas on excavations at Nineveh, but their eagerness to obtain from that city yet more information about events described in the Bible. The name of Nineveh itself appealed to the imagination of Christians and Jews alike; and many people expected Smith to bring back among his treasures a tablet containing an account of Jonah's mission to the city which contained "more than six score thousand persons" who could not "discern between their right hand and their left."

The interest in Assyriology stirred up by Smith's "Chaldean Genesis" and his other works has grown rather than diminished; and to-day Assyriologists are searching the cuneiform texts eagerly, in the hope of finding information and parallels that will illustrate or supplement the Bible narrative.

In England and France the study of Assyriology proceeded along the lines normally followed by students of an Oriental language which was new to them. They collected and published material, translated texts, verified and reverified their conclusions, and collected facts carefully, and did not attempt to generalize or to formulate systems in which to fit all their facts. The best scholars in both countries devoted themselves to consolidating the founda-

tions of the new science, for though they were certain in their own minds that Assyrian was a Semitic language, and that it would be invaluable for the comparative study of Semitic languages, many Semitic scholars who were not Assyriologists doubted these facts. In 1878 the head of a college at Cambridge said that Assyrian was a "pagan language which no one could read." And even our greatest English Semitic scholar, Professor William Wright, when lecturing in 1882 on the Comparative Grammar of the Semitic Languages, always prefaced any comparison which he was going to make between Hebrew and Assyrian, or Syriac and Assyrian, with the words, "if we may trust the Assyriologists." Though, for several years after Oppert published his *Expédition en Mésopotamie*, many people in France did not believe his translations to be accurate, when once Menant had published his works, no scholars of importance doubted that the cuneiform inscriptions could be read and translated. In England every person competent to judge regarded Sumerian, or "Akkadian," as it was then called, as a non-Semitic language, and believed, as Rawlinson had said, that it was the language of a people who inhabited southern Mesopotamia before the Semitic Babylonians. In France only one scholar disputed this fact, viz. Joseph Halévy, who, to describe his views shortly, maintained that Sumerian was not a language at all, but a system of writing invented by the Semites in Babylonia. And he laughed to scorn the idea that any non-Semitic people ever occupied Babylonia before the Semites. His views did not impede the general progress of Assyriology, though they certainly did give occasion to the enemies of the new science to blaspheme. But, in judging his contention that Sumerian was a Semitic invention, we must always remember his racial prejudice, and that he was proud to proclaim that his remote ancestors were kinsmen of the Hebrew Patriarchs

whose home was Babylonia, and that they were the founders of all civilization in Mesopotamia.

Now no historian of a new science has ever been able to show that it has always followed an unimpeded course; for there have always been periods of setbacks, and places where its professors have made it to take a wrong turning. There is no doubt that Assyriologists have made some serious mistakes; but fortunately their science has not suffered greatly through them, and it is possible that, had these mistakes not been made, the great advance that has taken place in Assyriology would never have been possible. Experience has shown over and over again that when men with preconceived notions go to work at a new science they are usually able to find material to support them.

The particular mistakes that the early Assyriologists made arose from a bias in their minds. Assyriology was for them not so much a science as a weapon in controversies about the Bible. The facts of Assyriology were used as arguments for or against what is called the "Higher Criticism of the Old Testament." This resulted in certain details being given a significance that they did not possess. A whole series of such malversations could be found, more especially in those works that attempted to prove that the monuments of Assyria and Babylonia verified the historicity of Hebrew tradition in every particular.[1] A typical example of such a malversation may be found in the ingenuity that attempted to show the existence of the names of Chedorlaomer and Arioch in the cuneiform inscriptions of about 2000 or 2100 B.C. Had the Bible passage (Gen. xiv. 1) not been in the mind of the copyist of the inscriptions in the British Museum (SP. 3. 2),[2] no such name would have been found; for it

[1] E.g. Sayce, *The Archæology of the Cuneiform Inscriptions* (London, 1907). *The Higher Criticism and the Verdict of the Monuments* (London, 1904).

[2] A photograph of the tablet was published by the British Museum (1895), but is now out of print.

does not exist. Nor would the name which was clearly Arad Sin, or Warad Sin, have been twisted into Ariaku (Arioch). The finding of the name of Chedorlaomer under the form of Ku-dur-nu-uh-ga-mar (which, as King showed,[1] is the name Inuhsamar), in a tablet at Constantinople, was due to a similar cause, *i.e.* a misreading of the cuneiform signs.

This atmosphere was especially noticeable in England; and many worthy men were of opinion that a large number of Biblical parallels could be found if sought for in the cuneiform inscriptions. One wealthy student of ancient Chronology, a banker, paid a young Assyriologist in 1873–1876 a retaining fee to search for such parallels; and many were found, according to the statements of the searcher. He said he had discovered in the Ḳuyûnjiḳ Collection a description of Paradise (including the Tree of Knowledge and the Serpent), and the Fall of Man, and an account of Cain and Abel, and of the overthrow of the Tower of Babel, etc. And Mr. Basil Cooper, a Press correspondent, used to visit the Museum every week to obtain for his paper information of any Biblical parallel that had been discovered since his last visit. The publication of these imaginary parallels did, and still does, a vast amount of harm, because the statements are repeated in popular works, and the public is very easily misled.

But such errors as those mentioned above are, after all, only errors concerning detail, and are generally of small importance. Much more dangerous is the INVENTION OF A SYSTEM which undertakes to explain much ancient history and much ancient religion, and to supply, as it were, a universal key which shall unlock all the secrets of the ancient Eastern world. These systems, which are chiefly of German origin, take the form of magnifying the influence

[1] *Letters and Inscriptions of Hammurabi*, Vol. I. p. xxxvi.

of Babylonia, and asserting a common origin for most ancient religious practices. This system-making was introduced into Assyriology when the wise oversight and guidance of Rawlinson had diminished, and men without his wide knowledge and understanding, who had created a reputation by parading on every occasion the corrections they had made in details of his work, thought themselves in a position to theorize about general matters, of which they possessed very little understanding. These systems generally take FOUR forms.

The FIRST system would derive all Hebrew language, and nearly all Hebrew religion, from Babylonia.[1] What the system overlooked was the fact that Hebrew, instead of being a development of the first millennium B.C., was at least 1000 or 1500 years older, that is to say, the form of it now known to Assyriologists as West Semitic was in existence in Southern Syria and Palestine as long as Akkadian was in Babylonia. And there is no possibility whatever that Akkadian was the mother tongue; but there is the possibility that Akkadian and West Semitic were related by a linguistic genealogy which we cannot at present elucidate. The West Semitic language was always different from the East Semitic; and the difference is well illustrated by the later Hebrew and Syriac. And the theory was no more fortunate in the matter of religion.

The base of the bitter *Babel und Bibel* controversy which distracted Germany for a time rests upon a misunderstanding. Whilst the lecture on *Babel und Bibel* was being written, I sent, at the writer's request, casts and photographs which he wished to reproduce as illustrations, and in due course he sent me a copy of the lecture delivered

[1] See Delitzsch's *Prolegomena; Babel und Bibel* (Leipzig, 1902); *Zweiter Vortrag über Babel und Bibel* (Stuttgart, 1903); *Philologische Forderungen* (Leipzig, 1917); *Grosse Enttäuschung*, and other works.

before the Deutsch. Orient. Gesellschaft and the German Emperor (Jan. 13, 1902), which was repeated by command before the Emperor and his Court on Feb. 1, 1902. Assyriologists and many other people read the lecture and considered that it contained nothing new, except the expression of the lecturer's personal views about the relationship which he believed to exist between the Babylonian Religion and the Religion of Israel. Folk who were practical-minded thought that the repetition of the lecture before the Emperor had been arranged under the most august auspices, in order to make the public realize how important it was, both from the political and archæological points of view, for their country to make excavations in Mesopotamia, and also to induce wealthy men in Berlin and other parts of the country to contribute generously to the funds of the Deutsch. Orient. Gesellschaft.

It was well known that our knowledge of historical events mentioned in the Bible had been corroborated by the inscriptions and sculptured reliefs which had been already excavated in Assyria and Babylonia; and the lecturer summarized all these with admirable skill. He also showed clearly what Assyriologists and every one who had read the official *Guides* to the Babylonian and Assyrian Collections in the British Museum knew well, that the Hebrews, like other Semitic peoples, were acquainted with legends, traditions, myths and folk-lore, etc., of the Babylonians. But when deductions were made from the facts set forth, they were often wrong, as Bezold, one of the lecturer's first pupils, pointed out; and it seems that it was these deductions that stirred up the storm of protests that broke out immediately.

These protests took the form both of criticisms and personal attacks, which remained unanswered, because the writer had gone on a mission to Babylon in connection

with the Deutsch. Orient. Gesellschaft. He arrived in Môṣul on April 27, and left Baṣrah on Aug. 23, 1902. On his return he was commanded to give another lecture before the German Emperor and his Court; and it was delivered on Jan. 12, 1903. When it was printed the storm of protests broke out afresh; and the public became alarmed at the beliefs which the lecturer was thought to hold, and had expressed before the Emperor, who himself wrote a letter on the subject, the text of which appeared in *The Times* of Feb. 25, 1903. This is not the place to discuss Delitzsch's views on Babylonian monotheism; or the meaning of "goal" which he gave to the name "Êl," *i.e.* God, or his remarks on Revelation in the Holy Scriptures. But, judging by what he has written, he entirely misunderstood the nature of the Religion of Israel. And he failed to recognize its spiritual character and its sublimity, and the lofty and exalted conception of God which formed its fundamental characteristic. Babylonian literature contains many ideas and expressions similar to those found in the Hebrew Psalms and the writings in other Books of the Bible; but the underlying ideas and meanings are different. And the relation of the Babylonian to his chief god was, in my opinion, wholly different from that which existed between the Hebrew and Yahweh. There is at present no evidence, and no reason for thinking, that a Babylonian could ever have written a composition comparable to Psalm XC. Delitzsch's own attitude towards the Hebrew Scriptures is thus expressed: "Ich für meine Person lebe des Glaubens, dass das althebräische Schrifttum, auch wenn es seinen Charakter als 'offenbarter,' oder von 'offenbartem' Geist durchwehter Schriften verliert, dennoch seine hohe Bedeutung immer behaupten wird, insonderheit als ein einzigartiges Denkmal eines grossen, bis in unsre Zeit hineinragenden religionsgeschicht-

lichen Prozesses" (*Babel und Bibel, Zweiter Vortrag*, p. 38).

This passage seems to have been meant to imply that the Hebrew Religion was a development of the ancient Babylonian Religion, and that it was part of a religious development, just as the Christian Religion may be considered as a development of the Judaic Religion. The fallacy is a very considerable one. The parallels which were established between Pagan Religion and the Hebrew Religion depended on the comparison of mere details with essentials. It is impossible to find in Babylonian texts even a *germ* of the spirit of the Prophets of Israel. And it would be as easy to show that Roman Catholicism sprang out of Roman Paganism, because certain details of pagan Roman belief survived locally, as to demonstrate that the Jewish Religion was merely a natural development of the Babylonian Religion. The *Babel und Bibel* controversy served no useful purpose in Assyriology, but it gained for certain scholars a kind of notoriety.

The second system we have to consider is of a less pretentious and more serious nature. There are those who would have us believe that the history of Our Lord Christ is only a version of the Myth of Bêl-Marduk of Babylon. As this matter is one that will interest many people besides Assyriologists, a few details must be given here. It is known from a number of Assyrian texts which were found at Ḳal'ah Sharḳât and have been published by Ebeling (see *Texte aus Assur Religiösen Inhalts*, 1915–1917 and 1920–1922) and translated by Zimmern (see *Zum Babylonischen Neujahrsfest Erster Beitrag*, Leipzig, 1906, and *Zweiter Beitrag zum Babylonischen Neujahrsfest*, Leipzig, 1918), that during the New Year Festival a kind of miracle play was performed at Babylon. During this play the Story of the Creation was recited in the temple, and the king played the part of the

god Marduk, and a priest that of the god Nabû; and in certain places the audience also took part in the proceedings. Marduk, the son of Ea, did battle on behalf of the gods against Tiâmat and her champion Kingu; the former he slew, and used her hide to form heaven and earth, and the latter he rendered helpless by a fiery dart from his eye. Marduk then fixed the stations of the moon and stars, and planned to make twofold the ways of the gods. As the result of a suggestion by Ea that a god should be sacrificed to consolidate the new order of things, Marduk called the gods into council, and Kingu was sacrificed because he was the cause of the war which had taken place; and Ea moulded man out of his blood. The gods built Babylon as a reward for Marduk; and when the temple Esagila had been built by the Anunnaki, the gods in full council bestowed upon Marduk the Fifty Names. During his fight with Kingu, Marduk took from him the DUP SHIMATI, or "Tablet of Destinies," which had been given to him by Tiâmat; but it seems that it was stolen from Marduk by Zu, and without it he could not govern heaven and earth.

What exactly happened then to Marduk is not known, for there is a gap in the text at this point in the narrative; but the next thing known is that the great god was in the "Mountain," *i.e.* grave, in a place where there was neither sun nor light, and where he was guarded by twin watchmen. Whilst Marduk was imprisoned in the grave, everything in Babylon fell into confusion. A goddess (Beltis) appealed to Sin (Moon-god) and Shamash (Sun-god) to restore Bêl, *i.e.* Marduk, to life, and then went to the grave and descended into it to save him. But these gods were powerless to bring Marduk out of the tomb, where he seems to have been held fast by the influence of Zu, who was in possession of the DUP SHIMATI which he had stolen from

Marduk.[1] The god Anshar sent out Enurta to capture Zu; and when this had been done, the gods were able to break through into the grave where Marduk was, and bring him out. (For a full summary of Marduk's history, see Sidney Smith's admirable article in *Jnl. Eg. Arch.*, Vol. VIII, pp. 41–44.)

According to Zimmern, the history of Christ, as told in the New Testament, is nothing but a repetition of the Myth of Bêl-Marduk of Babylon. His method is to draw up a long series of parallel details in the last part of the story of Bêl-Marduk, and in the narrative of the death and resurrection of Our Lord. Thus he would compare Beltis with the Virgin Mary, the prison with a guard over it in which Bêl-Marduk was fettered with the grave of Our Lord and its watchers, and so forth. Now this method of comparison is notoriously unsafe. It is quite possible to prove by this method that historical characters like Louis XIV or Napoleon were mere reflections of a myth. It is unwise and unscientific to use this kind of comparison until it is established that both the stories in question are entirely mythical. This of course cannot be done; and it is difficult to see what particular service such a list of parallels renders. It would be easy to draw up an even longer list of parallels between the Osiris story and Christian belief. It is more suitable to compare the two gods Bêl-Marduk and Osiris and their stories than Bêl-Marduk and Christ, until such time as Prof. Zimmern's particular views about Christ can be proved against the weight of the documentary evidence.

It is surprising to find an Assyriologist of such eminence as Zimmern identifying the history of Christ with the Myths of Bêl-Marduk and Ashur, seeing that the Myth of Osiris would have served his purpose far better. Osiris,

[1] Zu actually stole the tablet from Enlil, with whom, presumably, Marduk is here identified.

like Bêl-Marduk, was the son of the god of the abyss of heaven, and held an exalted position among the gods, and was King of kings, Lord of lords, and prince of gods and men. He established creation, and his sovereignty was certified by a decree [passed] in the Chamber of Records, which was inscribed on a tablet of iron (*ṭeb-t ent bȧ-t*) by the order of Ptaḥ-Tanen" (*Book of the Dead*, Chap. CLXXXIII, lines 14 and 15). The tablet of iron is probably the equivalent of the "tablet of destinies." Like Bêl-Marduk, Osiris possessed many names. Osiris was killed by the machinations of Set, and went down into the Other World. His wife Isis is the equivalent of Beltis, and each goddess went to the grave of her lord; Isis, assisted by Thoth, the Scribe-god, effected the resurrection of Osiris, and Beltis, with the help of Nabû, the Scribe-god, brought about the release of Bêl-Marduk from the grave. The gods in council investigated the charges made against Osiris by Set, and Thoth having shown that Osiris was innocent and Set a liar, they established Osiris once and for all as god of the Underworld. The capture of Zu by Enurta, who was sent to do this by Anshar, is the equivalent of the punishment of Set in the Myth of Osiris. And there is good reason for thinking that Asari, one of the names of the god Ashur = Osiris; and if this be so, the cult of Osiris must have originated in Northern Syria, and made its way down the Euphrates to Babylon and southward into Egypt.

A fantastic theory was promulgated by Peter Jensen, who wrote a very interesting book entitled *Assyrische-babylonische Mythen und Epen* (Berlin, 1890), in which he translated all the then known tablets and fragments on which were inscribed mythical texts, and in his treatment of them displayed great learning. Some years later he published *Das Gilgamesch-Epos in der Weltliteratur* (Strass-

burg, 1906), and in it he expounded his theory that the Legend of Gilgamish and his Exploits and Travels, as narrated in the Babylonian and Assyrian tablets, is the foundation of the myths and folk-stories, not only of all the Semitic nations, but also of the peoples of India, and of the Greeks, Romans, and other Western nations. According to the Twelve Tablets, Gilgamish was a wise and learned king; and it seems that he reigned at Erech before the conquest of Mesopotamia by the Semites. Two-thirds of him were god, and one-third was man. He made a bosom friend of the mighty hunter Enkidu; and together they slew Khumbaba,[1] the guardian of the cedar forest, and the terrible Bull of heaven, which Anu had created to destroy Gilgamish. After the death of Enkidu, which Gilgamish lamented bitterly, Gilgamish started on his travels to find Uta-Napishtim, in order to learn from him the secret of immortality. Though he found Uta-Napishtim and conversed with him, he failed to obtain from him the information he wanted, and returned to Erech. He then appealed to the god Ea, who instructed Nergal to allow the spirit of Enkidu to visit the earth and converse with Gilgamish; but when Enkidu appeared, "like a breath of wind," the information that he gave to Gilgamish was incomplete, and left the king unsatisfied.

Jensen's view of the Gilgamish Epic is that it represents a story told about the stars, that it deals with the movements of a planet in its conjunction with fixed stars, and that the whole story can only be understood in reference to its astrological significance. This interpretation, though not certainly established, is very possible. Jensen proceeds

[1] According to Sidney Smith, Khumbaba may have been a volcano spirit. In any case, his face was not that of a human being; and it came to be thought of and represented as a single line, twisted about after the manner of the entrails. See *Liverpool Annals of Archæology*, Vol. X, "The Face of Humbaba."

to examine the stories told of various characters in the Old Testament, *e.g.* Joshua, Saul, David, and others, in the light of the Gilgamish Epic. For this purpose he employs the system of parallelisms, the fallibility of which has already been noted. In no single case is Jensen able to compare the whole story of Gilgamish with the whole story of any one of these characters. At the most he can only point to certain coincidences in detail, sometimes of a very natural character; and sometimes the resemblance is of such a general description as to be useless. His final result is to reduce Israelitish History to a series of repetitions of the Gilgamish Epic, due, in his opinion, to different tribal versions. So far does his theory lead him that he is actually inclined to doubt the historicity of Ahab and his time. This conclusion is a sufficient condemnation of the method. The analyses which he devoted to certain Greek and Indian myths are a form of intellectual acrobatics which leads to no more satisfactory result.

A similar kind of effort to show that all ancient peoples derived a cosmological theory from the Babylonians has been made by a school of Assyriologists in Germany; and their theory is generally described as "Pan-Babylonismus." In the first millennium before Christ, as is now well known, Babylonian religion was predominantly astral. Starting from this basis of fact, certain scholars assumed that this astral religion had a much closer relationship to astronomical fact than is really the case. Babylonian knowledge of astronomy remained extraordinarily limited until the end of the fourth and beginning of the third century B.C.; and it is extremely doubtful whether the Babylonians ever discovered the precession of the Equinoxes on their own account. They did people the heavens with all sorts of divine and mythical beings, and inanimate objects, in a way that has persisted, with certain modifications in their

names, down to our own time. The Pan-Babylonists assume that in the third millennium B.C. Babylonian religion was already predominantly astral, and that the priests were acquainted with several of the systems of astronomical theory. The cosmology which they are supposed to have constructed is then assumed to be the basis of some similar details in the cosmological systems of the Egyptians, the Hebrews, and the Greeks; and it is argued that, since the Babylonians alone understood the scientific basis of the theory, they must have been the originators of the system from which these other nations borrowed. It will be seen that the argument depends upon two main contentions: 1. That the early Babylonian astrology had a real basis of scientific knowledge; 2. That other peoples were so deeply affected by Babylonian astrology that a vital part of their religious belief was modified by it. Neither of these contentions has any justification in fact. Innumerable detailed arguments, especially upon the astronomical side, have been brought forward to make them credible; but these same arguments, when examined by the astronomer-Assyriologist Kugler, have invariably proved erroneous. See his *Im Bannkreis Babels*, and also *Auf den Trummerhaufeln des Panbabylonismus*. On historical grounds the theorists have been no more fortunate; and the great mass of literature that is concerned with the *pros* and *cons* of the argument reveals the extent of error in detail inherent in the theory.

A typical example of this is afforded by Winckler in respect of a non-existent country called "Muṣri." Assyriologists have known for a very long time that there are two countries called "Muṣri" mentioned in the cuneiform inscriptions. One "Muṣri" was Egypt, the other was a land either in Northern Syria or east of the Tigris. Winckler said that all the mentions of the "Muṣri" which is Egypt

that are found in the inscriptions of Tiglath Pileser III and of Sargon and Sennacherib refer, not to Egypt, but to another country of the same name, which, according to him, existed in Northern Arabia (see *Altorientalische Forschungen*, Leipzig, 1893, p. 24 ff.). He considered this Arabian "Muṣri" to be a part of Dr. Glaser's hypothetical "Minæan Empire"; and his views helped to support Cheyne's theory of the existence of a Jerakhmeelite kingdom in Palestine. Winckler based his arguments on statements in the Assyrian inscriptions; but when the original texts were examined, they failed to support his contention. He was careless in copying the texts, and hasty in his conclusions, owing to the bias of his theory. The reader will find an examination of his theory in the Preface to my *History of Egypt*, Vol. VI (London, 1902) with references to the texts; and the arguments there set forth by me have since been adopted by Eduard Meyer.

Both Winckler and Cheyne, who adopted his theory, rejected all consideration of historical and geographical probabilities, and were prepared to admit that there was wholesale corruption in the Hebrew text of the Old Testament. The "Muṣri" theory brought great discredit on Assyriology for a time; but it has now passed into the limbo of impossible theories, and only exists as a memory.

The reader is now in a position to judge of the nature and credibility of systems promulgated by Assyriologists in Germany, and to understand the kind of handicap that has been imposed by them on the growth of Assyriology. Labour, which should have been spent on the two chief requisites of the young science, viz., 1. the decipherment and interpretation of new texts; 2. the compilation of sign-lists, dictionaries and general studies on the original texts that would aid scholars, was diverted to serve controversial purposes. And none of these controversies

advanced knowledge to any considerable extent. Above all, many came to the study of new texts with false and unreliable conceptions, and found in the texts confirmation of their opinions, which did not really exist. Indeed, it is possible that some of these systems have wrought permanent injury. Thus scholars who do not believe in "Pan-Babylonismus" have been led, by a natural bias, to underrate astrological influence in the Babylonian religion. And many who recognized it have been chary of drawing natural and legitimate inferences because of their possible misuse in the hands of others. It is to be hoped that in the future Assyriology may be free from this kind of incubus.

Some of the intellectual errors which have retarded the progress of Assyriology have been described above; it cannot be concealed that considerable harm has been done to the science by the faults of the temperaments of individuals. Between 1871 and 1883, when studying in Birch's Department, I had the honour of being introduced by him and Wright to many Continental scholars who were men of great learning and wide reading, and were withal modest and self-effacing. As an official between 1883 and 1924 I came as a matter of duty into contact with all the scholars who visited the Department to study. In the course of this period as a spectator, I observed the damage which may be done by a lack of courtesy or an overweening pride in matters of science. The kind of damage to which I refer takes various forms. When a scholar visits another country to do scientific work, with the opinion that he alone is competent to deal with his subject, he may be misled into actions which are in themselves contemptible. An instance of this may be noted in the case of a scholar who came to study in the British Museum, to verify readings and to collate passages in important literary texts. He

came to the Museum with a long list of queries, which necessitated the examination of hundreds of tablets. It was noticed by the official in charge of the Students' Room that he worked through his queries with great rapidity, and also that when he found a character too difficult to decipher, he would try to make it clearer by using his penknife to scrape out the wedges, and to make the character look like what he thought it ought to be. He was promptly stopped doing this, and admonished; but very soon after he was caught repeating his scraping of the characters, which he called "clearing," and was warned that a repetition of this offence would be followed by his exclusion from the Students' Room. A day or so later he was seen "clearing" the text on a tablet belonging to the Gilgamish Epic; and when it was taken from him it was found that he had entirely "cleared" away portions of the text with his penknife; and the breaks made by him in the surface of the tablet are plainly visible to the present day. The matter was reported to the Director, who sent for the offender; and when he asked him why he had mutilated our tablets, the answer was, "If I cannot pick the tablets with my knife to clean them, what is the good of my coming to the Museum?" He expressed no regret; and the Director excluded him from the Students' Room, and notified His Excellency the German Ambassador that he had done so. When the other tablets that had been issued for the student's use were examined, it was found that many of them bore marks of his pen-knife, which had been used in such a way that it was impossible for anyone to say what characters had been "cleared" away.

No one except, perhaps, the offender himself would be prepared to admit that such conduct can at any time be said to advance science. But his behaviour arose from a attitude that came to be very common among certain

students. In the British Museum authorized students are given facilities and accommodation which are equalled by very few public institutions and excelled by none. Only a false estimate of one's own individual importance could lead to the kind of request submitted by a Professor who asked to be provided with a room to himself, because he could not work satisfactorily in a room with other people. He added naïvely that he did not wish the other students, who happened to be of his own nationality, to know what he was doing. When, in a previous year, the same gentleman was told that space for students was limited, and that, if he wished to secure a seat, he must appear in the room before 11 a.m., he replied that it was not convenient for him to come before 2 o'clock; and at that time he arrived. When he was told that the only seat for a student was occupied by a gentleman who was doing work for the trustees, he said, "You must turn him out. I am an envoy of the Saxon Government." Finding that his orders were not carried out by the official in charge, he went to a fellow-countryman who was an Assistant in the Museum, and induced him to lay a formal complaint before the Director, to the effect that an envoy of the Saxon Government was being obstructed in his mission. The Director upheld the ruling of the Keeper of the Department; and the Assistant returned to his room an angry man.

All the students who came to copy in the Museum in the 'eighties and 'nineties were convinced that the Collections of tablets contained a number of important texts belonging to the Gilgamish Legend; and they employed much guile and flattery in trying to persuade the officials to let them have these hypothetical documents to copy. When asked if, supposing the Collections contained such texts, they would be kept locked up in cupboards, and not published by the Museum, each would answer, almost in the same

words, "Yes, because you have no one here who can read them; for George Smith is dead." Nothing would persuade them that such tablets did not exist; and some of them spent much time in peering through the glass doors of the presses to try and read the tablets in them.

One scholar, whose conduct in the Students' Room was, to say the least of it, highly eccentric and discourteous towards the officials, went so far as to send one of the Attendants to the Keeper to ask for the keys of the presses to be sent to him, so that he might see what was inside them. At first the Keeper took no notice of the request; but when it was repeated two or three times, he went to the Students' Room and interviewed the applicant for the keys. The student admitted that he had sent for the keys because he wanted to know what tablets were in the presses, and then said words to this effect: "I am sent by the Prussian Government to copy tablets, and I will have tablets to copy; not those which you give me, which are no use, but tablets that have interest. You here cannot read them—you only pretend to do so; but I can read them; and if you do not give me what I want, I will apply to the German Ambassador. Give me the tablets. I will tell you what they say; and then you can write it in your books, and it will make you a reputation."

The advantages offered to students by the British Museum have sometimes been used for purposes other than study, as the following shows. In the spring of 1914 a German, who styled himself "Doctor," came to the Museum; and as he brought introductions from prominent officials in Berlin, he was permitted to use the Students' Room, and the tablets he asked for were given out for him to copy. But it soon became evident that he knew nothing about tablets or copying, and that his Assyriological knowledge was extremely limited. He held the tablets upside down,

and by his careless handling he dropped and broke a tablet, and was indignant when the officials urged him to take more care. It was soon evident that copying cuneiform texts was not his chief object in coming to the Museum; for he engaged any and every member of the staff in conversation, and his thirst for information about their positions and work, and about the staff and the collections in the other Departments of the Museum, was insatiable. He openly abused the Trustees and their servants, especially the Orientalists and archæologists of the Museum, and said the usual things about the superiority of German scholarship. An American student took up the cudgels on behalf of the English; and their arguments became so heated and noisy that the staff had to interfere. Many men of foreign appearance visited him; and he and they would prowl about the galleries and rooms until closing time, when they were with difficulty got out of the Museum. He was not seen at the Museum after August 4, 1914, and creditors who came for his address in order to go and collect their debts declared that he was a spy, and said that he left his rooms or house on the evening of the 4th, and did not return.

When an Institution like the British Museum places its resources at the disposal of the student, at the expense of the British nation (and this expense is often not inconsiderable), it should entail on the student responsibility. This must, of course, always be implicit, and subject to conditions; but clearly the copying of Assyrian texts should always imply the intention to publish them at no distant date. Otherwise national resources are being used entirely for the benefit of private individuals. Certain scholars seem to think that they are entitled to these privileges without such responsibility; and it cannot be too much regretted that in numbers of books published

in Germany reference is made to private copies of texts which have remained unpublished so long as thirty years! The instance given will sufficiently illustrate the abuse of privileges granted by the British Museum.

The limited space in which both the staff of the Department and the students had to work during the transfer of the Collections from the ground floor to the upper floor in 1882–1883 caused inconvenience to both; and it enabled one student to carry out a very "slim" proceeding. The cases containing the antiquities that Rassam had excavated at Abû Ḥabbah were brought up, one by one, to the space partitioned off from the portion of the First Egyptian Room to which the public were admitted, and unpacked there. One of the cases contained the now famous white Boundary-Stone of Ritti-Marduk (B.M. No. 90,858); and a student was there when it was being examined by Birch, who ordered that the long Babylonian text on it should be reserved for publication in the new volume of *Cuneiform Inscriptions*, which Rawlinson was editing for the official publication of the Trustees. The student saw the Stone, and was, seemingly, only interested in it to a small degree. But, watching his opportunity, he managed, unknown to the staff, to get a paper "squeeze" made of the inscription, and took it away when he had finished the work he had come to do. He made a transcript of the inscription and a translation, and in the autumn following published both, with facsimiles of the figures of the gods, etc.[1] In later years he boasted openly of the clever way in which he had hoodwinked the staff; and when the dishonourable character of his behaviour was pointed out to him, he maintained that he

[1] Hilprecht, *Freibrief Nebukadnezars I Königs von Babylonien, c.* 1130 *V. Chr. Zumersten Mal veröffentlicht, umschrieben und übersetzt* (Leipzig, 1883).

had acted solely in the interest of science. And he went on to say that nobody in the Museum could read the inscription, that Rawlinson's knowledge of cuneiform was antiquated and obsolete, and that but for himself the Stone would have been kept hidden for years. It will be remembered that Eisenlohr behaved in much the same way when Birch was preparing an edition of the Rhind Mathematical Papyrus. He borrowed the facsimiles of the hieratic text from Birch, ostensibly to study in the evenings and on Sundays during his stay in London; but as a matter of fact he made tracings of them, and, on his return to Germany, reproduced them by lithography, and published them before Birch's official edition could appear.

In the case of the publication of Nebuchadnezzar's Charter to Ritti-Marduk, it was only the priority of publication that was filched from the Trustees of the British Museum; but the works of several of their servants have been plagiarized, as the following examples will show. From King's work, *Babylonian Magic and Sorcery* (London, 1896), Delitzsch republished one of the most important of the Prayers of the Lifting of the Hand without acknowledging the source. Delitzsch, who stated that he had heard in Russell Square a supernatural voice which assured him that he was to be George Smith's successor, was allowed to examine Smith's private note-books and papers, which were brought to the Museum after his death in 1876; but he omitted to state in his books whence he had derived the facts that he quoted. For interesting remarks on his plagiarisms from his fellow-countrymen, see Winckler and Peiser in the *Zeitschrift für Assyriologie*, Bd. VII., p. 182. Another Professor of Assyriology called on King in the British Museum and showed him a fantastic scheme of Babylonian chronology, which he had recently published. King explained to him where the scheme was hopelessly

wrong, and lent him his own private copies of several important chronological texts in order to help him; but when the corrected scheme was published a few months later, it was not accompanied by any mention of the copies of texts, or of King's assistance. Some years ago a young German Assyriologist published an elementary book on Assyrian Grammar; but he borrowed so largely from King's *First Steps in Assyrian* without acknowledgment that I felt obliged to write to the *Athenæum* and point out that whole pages had been copied from the English book.

In 1902 R. Campbell Thompson discovered the Legend of the Worm on a fragment of a tablet (No. 55,547) in the British Museum, and published the text of it in *Cuneiform Texts* (London, 1903), Part XVII, Pl. 50. The Legend states that in primæval times the Worm went weeping into the presence of Shamash and Ea, and asked what its food was to be, and begged for permission from these gods to "devour the blood of the teeth and to destroy the strength of their gums." The gods agreed; and the Babylonians believed that toothache was caused by the gnawing of a worm in the fangs of the teeth. This discovery excited great interest, and was much talked about by experts and others; and it was well known among Assyriologists that Thompson was writing a book on the Devils and Evil Spirits of Babylonia, and that he was going to publish translations of all the tablets of a similar character that he could find. In spite of this, Prof. Meissner made a translation from Thompson's copy of the text, and published it in a periodical, as if the discovery was his own. The result is that in German books Meissner is quoted as the discoverer of the "toothache tablet," and Thompson is not mentioned.

Another British Museum official, Sidney Smith, published for the first time the text of a very important cylinder of

Sennacherib, with a transliteration in English letters, a translation, and notes, in *The First Campaign of Sennacherib, King of Assyria*, 705–681 B.C. (London, 1921). This text contains a great deal of new information, and describes the tactics of Sennacherib's campaign in Babylonia, 702–703 B.C., and furnishes data which are of great value geographically. The copying of the text was difficult owing to the abrasions on the cylinder; but Smith succeeded in making a good copy. A certain German Assyriologist read the book, and then reprinted Smith's text, with a few alterations which he was able to make from Smith's own translation and notes.

Another example may be given of this practice. In 1923 C. J. Gadd published officially for the Trustees a tablet inscribed with a Chronicle dealing with the last years of Assyrian History. The very important readings to be found on this tablet are not always quite clear, owing to the damaged state of the surface of the tablet; but only those who have actually seen the tablet can possibly be in a position to add anything to what Gadd has said in his work *The Fall of Nineveh* (London, 1923). A young student,[1] who has never published any original material, has taken the opportunity to republish the transliteration and to add a German translation of this tablet, on the ground that the errors made by Gadd in his translation would lead to false historical conclusions. The new translation depends on imaginary readings which find no support in the actual text on the tablet; and it contains versions which are inaccurate of very well-known Akkadian phrases. These "corrections" of Gadd's work are the "scientific" excuse for an action which is wholly unjustifiable. The practical result of such actions is that English Assyriology, which can well afford to ignore such breaches

[1] Julius Lewy, *Forschungen zur alten Geschichte* (M.V.A.G., 1925).

of good manners, is greatly handicapped in the matter of publication. No publisher is willing to accept the responsibility or to incur the expense of printing a costly book, when it is almost certain that the essential parts of it will be plagiarized and reprinted by cheaper labour. In cases where the author bears the expense of publication, which often happens in England, the hardship is even greater.

Experience shows that it is only when the English or French scholar has copied and printed a text, and added a translation of it and pointed out, if not explained, the philological difficulties in it, that the German Assyriologists consider it to be in a fit state for them to work at. They correct the mistakes which are inevitable in every *editio princeps;* and the German edition of the text is the only one that is quoted throughout Germany. If any Assyriologist will give the time and take the trouble to collate a text published by a German for the first time, he will find that there are in it at least as many mistakes as, and probably more than, there are in a text of similar length and difficulty that is published for the first time by an Englishman. This statement is not intended to detract in any way from the value of German work on the minutiæ of grammar or on points of philology, which are often of the greatest importance, or the German faculty for elaboration and patient research, which is beyond all praise; but German Assyriologists were never good copyists. Many of them who came to the British Museum to copy texts had never handled a tablet before they sat down in the Students' Room; and one and all of them underrated the difficulties of copying accurately. Good eyesight and neatness are not all that is required by the copyist; he should have a knowledge of the cuneiform inscriptions and of cognate Semitic dialects, and should have in his head a sort of *apparatus criticus*. German Assyriology has

always been hampered by the lack of good copyists and of the understanding of the importance of copying. The important tablets which Winckler found at Boghaz Keui in 1906–1907 remained unpublished for seven or eight years because no German could copy them. The extracts from them translated by Winckler proved conclusively that they contained historical information of the highest value; but it was not until 1916 that Figalla and Weidner published any of them. Had English or French Assyriologists done as Winckler did, and quoted cuneiform documents without adding the original text, the Germans would have called heaven and earth to observe the unscientific and unscholarly character of their proceedings. It may be added that when Winckler's translations of unpublished texts are compared with the originals, they will not bear comparison with the translations of George Smith and other early English Assyriologists, whose work is decried in Germany as unscientific.

It is a curious fact, but the German Assyriologists with whom I came in contact in the British Museum showed, by their talk and behaviour, that they believed that the science of Assyriology was founded by the Germans, and that they had taught the rest of the world how to decipher and translate the cuneiform inscriptions; whilst the exact opposite of this is the truth. Schrader founded himself on Rawlinson, and Delitzsch on Rawlinson and George Smith. And as for excavations in Assyria and Babylonia, many shrewd observers have remarked that Germany only began to excavate seriously in those countries when she began to dream of creating the German Oriental Empire, which was to be reached by way of the Baghdâd Railway. Many German Assyriologists believe (and they have followers in other countries) that Grotefend, the Hanoverian, was the first to decipher the cuneiform inscriptions. But, as

I have clearly shown, the "inspiration" which led him to guess at the names of Darius, Hystaspes and Xerxes in the texts copied by Niebuhr (another Hanoverian) was Silvestre de Sacy's guess that the Sassanians copied the Old Persians in the form of their royal titularies. It is quite true that Grotefend guessed correctly the phonetic values of twelve of the Persian cuneiform characters; but of the translations that he made before 1815 so careful a critic as Booth says, "Many of these attempts excited well-deserved ridicule" (*The Discovery*, p. 180). And nearly forty years later, when Rawlinson had translated all the inscriptions on the Rock of Bihistûn, Grotefend translated the inscription on a brick of Nebuchadnezzar II, which reads, "Nebuchadnezzar, King of Babylon, Restorer of Esagila and Ezida, eldest son of Nabopolassar, King of Babylon, I am," as if it were a form of prayer addressed to some god. He failed entirely to identify the name of Babylon and the names of the two kings (See Grotefend, *Erläuterung der Keilinschriften Babylonischer Backsteine*, Hanover, 1852). Undoubtedly Grotefend deserves great credit for the work he did; but it was Rawlinson, and he alone, a soldier on active service in Persia, with no works of reference at hand, who first deciphered and translated the Persian Version of the Bihistûn Inscription. No one but Rawlinson had a copy of the Bihistûn Inscription, and therefore no one but he could work at it. Grotefend, Lassen, Burnouf, and Rask had only the texts from the monuments at Persepolis to work at, and even of these they only had faulty copies until Westergaard published correct ones. That distinguished scholar was the first copyist of the Persepolitan texts who understood what he was copying. The supporters of Grotefend's claim to this achievement do not, and apparently cannot, understand that Rawlinson possessed real genius for this kind of work, and that

Grotefend did not. The only other early Assyriologists who have enjoyed a measure of Rawlinson's natural ability for deciphering texts were Hincks and Norris; and the only other Assyriologist who was capable of perceiving the meaning of a cuneiform inscription almost at a glance was George Smith. German and other writers claim that the works of Rask, Lassen and Westergaard were the sources of Rawlinson's success; but Rawlinson had done his work before he saw them or even knew of their existence. And these three scholars were Scandinavians, and not Germans; Assyriology in its early stages owed much to Denmark, and very little to Germany. We may note, too, that the three greatest Assyriologists in Germany, Strassmaier, Hommel, and Bezold, were Bavarians.

In the preceding pages sufficient has been said to prove the importance of Assyriology. On it rests the foundation of a great deal of ancient history. It supplies unrivalled material for the study of early religion; and it has already revealed a world of social organization and material well-being at a very early period, of which the evidences elsewhere are partial and of doubtful explanation. Henceforth Assyriology must be reckoned as a necessary branch of humane learning; and in those scholastic institutions which are devoted to such subjects, Assyriology should be adequately represented. This fact is recognized on the Continent and in America, where Schools of Assyriology with a proper teaching staff may be found at numerous important Colleges and Universities. In England alone, its birthplace, the science has been neglected. There are only two Professorial Chairs in England; and these are inadequately endowed. A subject which offers a wide and profitable field of research, the results of which affect the study of the Old Testament, the Classics, and Archæology generally, is neglected in all post-graduate work, even at the Universities where it is

recognized. This seems to me to be a grave deficiency in our educational system. There is no reason why a sound school of English Assyriology should not be attended by the same success that has followed Egyptological research. This would only be possible with the support, both moral and material, of the existing learned institutions; and it is to them that we must look for some improvement in this direction.

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